Food and Agriculture Organization of the United Nations

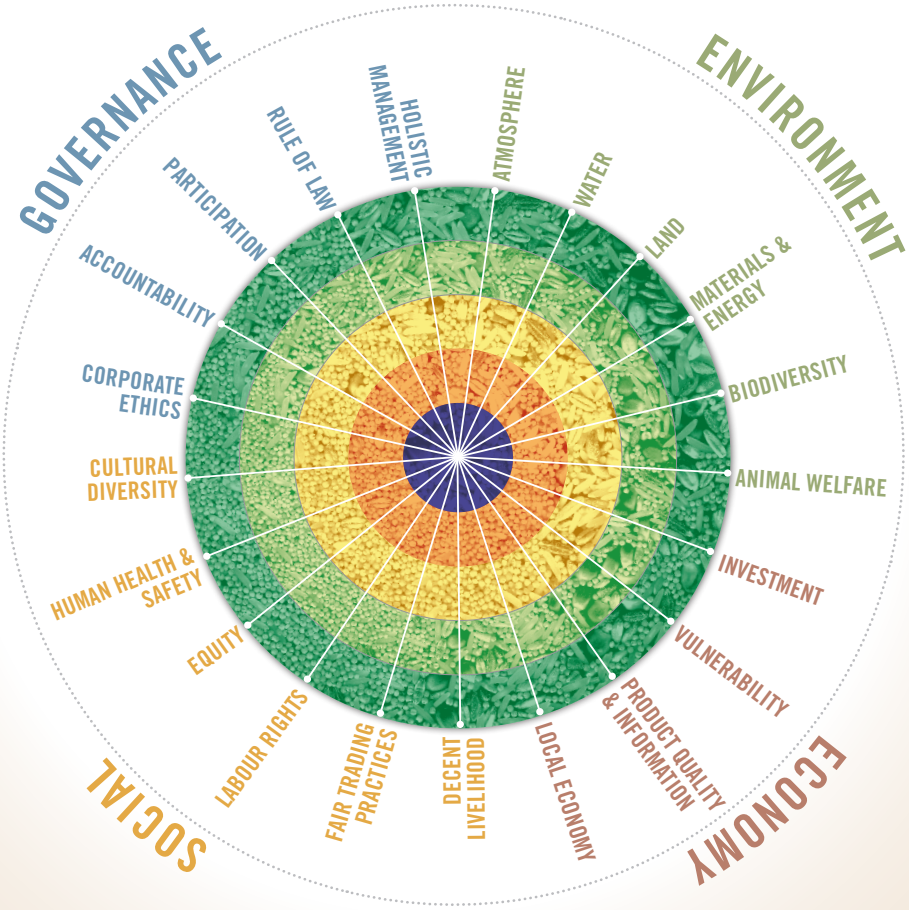
SAFA

SUSTAINABILITY ASSESSMENT OF FOOD AND AGRICULTURE SYSTEMS

Smallholders App

USER MANUAL VERSION 2.0.0

(for Android 4.0 and higher)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CORPORATE ETHICS
ACCOUNTABILITY
PARTICIPATION
RULE OF LAW

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS - ROME 2015

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The SAFA Smallholders App and other SAFA products can be downloaded from:
www.fao.org/nr/sustainability/sustainability-assessments-safa

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ACKNOWLEDGEMENTS

SAFA is an initiative led by Nadia El-Hage Scialabba, Climate, Energy and Tenure Division; thanks go to the Federal Republic of Germany for financially supporting the development of the SAFA Smallholders App.

The SAFA Smallholders App (version 2.0.0) is an open source, freely-available and user-friendly software offered by FAO to implement the SAFA Guidelines (version 3.0) for the sustainability assessment of small-scale agriculture producers.

The SAFA Smallholders App was developed in cooperation with the Committee on Sustainability Assessment (COSA), Grameen Foundation, Soil & More Foundation and Elbmind GmbH, and with technical reviews by FAO and other colleagues.

Thanks go to all those who contributed to the development of this mobile application, from indicators and survey development, through training and field testing, to IT programming, including: Anne Bandel, Marcello Cappellazzi, John Choptiany, Sergio Correa Asmar, Whitney Gantt, Daniele Giovannucci, Benjamin Graub, Elizabeth Henderson, Ana Herrera, Christina Ingersoll, David Kahnt, Cristina Larrea, Sally Lee, Thomas Lindner, Cristopher Lomboy, Juan Lubroth, Jon Manhire, Soren Moller, André Mommert, Jessica Mullan, Paul Munro-Faure, David Palmer, Stefan Peschke, Alberto Solano, Daniel Salter, John Stansfield and Harry van der Wulp. Last but not least, the contribution of the numerous trainers, development workers and farmers working with the Grameen Foundation who graciously invested their time, is greatly appreciated. The SAFA art work and desktop publishing is provided by the skillful team of Bartoleschi Studios.

With support from

Federal Ministry of Food and Agriculture

by decision of the German Bundestag

In cooperation with

COSA Committee On Sustainability Assessment

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Soil & More Foundation

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PREFACE

The SAFA Smallholders App was developed at the request of practitioners in order to further expand the applicability and implementation of the SAFA Guidelines. This included the development of a set of indicators that are both highly relevant and practical to small-scale producers, as well as an application for conducting assessments in the field, using smart phones and tablets.

COSA's experience with agricultural sustainability assessment was the basis for adapting SAFA to smallholders by developing appropriate indicators and providing methodological guidance for data collection and analysis, although FAO made the final choices. In addition to contributing to the refinement of the indicators, the Grameen Foundation used its networks and existing experience with mobile technological development programmes at the community level to field test the SAFA App surveys and provide feedback; testing was performed in Colombia and Kenya with hundreds of subsistence, semi-commercial and commercial farmers. Finally, Soil & More Foundation developed together with Elbmind GmbH the SAFA Smallholders App mobile application. The beta version

Small-scale farming is a vital contributor to the food and fiber needs of many countries. Farming is also a major employer in more than a hundred nations and often forms a vibrant part of their cultural identity. Yet rural areas in developing countries also hold two-thirds of the world's poorest and multiple factors ranging from soil degradation, water scarcity and climate change, to challenging markets and macro-economic changes, increasingly impede their sustainability. If small farmers are to be part of the solutions – and there is no viable alternative in most places – then they must be supported in developing their own understanding of the many facets of sustainability that affect them and that affect all of us. The Committee on Sustainability Assessment is committed to the ongoing evolution of diverse assessment tools and along with the FAO, it is also committed to the SAFA Smallholders App's development so that it can fully serve its important purpose.

Daniele Giovannucci
President, Committee on
Sustainability Assessment

of the tool was further tested by the Agribusiness Group in New Zealand, the Finance Alliance for Sustainable Trade in Spain and graduate students from Ghent University doing their research in India.

Although the "SAFA Guidelines", "SAFA Indicators" and "SAFA Tool" are applicable to both small-scale and large-scale enterprises, the resources needed for a comprehensive performance assessment are often not accessible to small-scale producers. The SAFA Smallholders App considers the potential lack of data, lack of time and capacity, as well as irrelevance of some global indicators for small-scale producers.

Small-scale producers have diverse objectives, from maintaining their living conditions and future food supply – through reporting credibly to project evaluators and investors – to advancing competitiveness and participating in markets and supply chains. Considering that the SAFA Smallholders App was designed to be useful and practical at the farmer level, the SAFA Guidelines were distilled so that smallholders could measure the most critical aspects of what really matters for their own sustainability. This guided the development of appropriate indicators and survey questions that reflect smallholders' size (i.e. limited capacity), practicality (i.e. accessibility of best practices), scope (e.g.

The SAFA Smallholders App is a precise, comprehensive and easy to use tool for assessing the sustainability of small-scale farmers' holdings. It provides practical recommendations that producers can use to improve their farms and overall productivity.

Alex Counts
President and CEO, Grameen Foundation

Sustainability is actually a misspelling. It should rather be the "ability to sustain". We all know that small-scale farmers are an essential part of feeding the world. The SAFA Smallholders App helps small-farmers in the field to discover for which topics they still need to improve their abilities and what are the next steps.

Tobias Bandel
Executive Director, Soil & More Foundation

limited time to dedicate to the assessment) and purpose of the assessment (i.e. better decision-making and farm management by acting upon identified weaknesses).

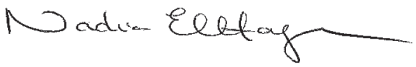
The SAFA Smallholders App ultimately seeks to facilitate self-improvement and capacity development for small-scale producers. The tool can also be used to demonstrate to potential buyers, policy-makers, and investors that smallholders have a level of understanding of sustainability, including the strengths and weaknesses of their farming operation. While these qualities could attract increased investment (e.g. supply chain participation, local procurement, foreign investors), or compensation by local, regional, national or international organizations (e.g. payments for ecosystem services), the tool was primarily designed for the purpose of learning and as a potential driver for self-improvement.

The SAFA Smallholders App is offered in a standard form, fitting many small-scale agricultural producers in any country of the world. Upon request, FAO can generate customized surveys in diverse languages.

For the Elbmind GmbH team, automatizing the data gathering and evaluation process of SAFA Smallholders App fulfilled the urge to positively contribute to sustainability of the food sector. By embracing the SAFA principles, this easy-to-use App will greatly improve awareness and analysis of hotspots. We are proud to be part of such a great and forward-looking initiative.

Thomas Lindner
CEO, Elbmind

The SAFA Smallholders App is a tool for collective learning: help us improve by sharing your assessment results!



Nadia El-Hage Scialabba
SAFA Manager, FAO

1. GOAL OF THE SAFA Smallholders App

1.1 Purpose of the SAFA Smallholders App

The SAFA Smallholders App is a free of charge mobile application (version 2.0.0) for Android 4.0 and higher, created by FAO and partners to address the specificities of smallholders, following the principles and framework of the SAFA Guidelines (version 3.0) for sustainability assessment. For the Smallholders App, the SAFA Themes and Default Indicators have been contextualized so that they better fit the needs of small-scale producers in agricultural settings, including both subsistence and commercial crop and livestock systems. The SAFA Smallholders App allows users to download the SAFA survey, collect data by responding to questions, evaluate results and share these results via SMS or e-mail.

1.2 The SAFA Guidelines (3.0)

SAFA is a holistic global framework for the assessment of sustainability along food and agriculture value chains. SAFA establishes an international reference for assessing trade-offs and synergies between all four dimensions of sustainability (i.e. environmental, social, economic, governance). It has been prepared so that enterprises, whether companies or small-scale producers, involved with the production, processing, distribution and marketing of goods have a clear understanding of the constituent components of sustainability and thus, are better able to know their strengths, concentrate on their weaknesses and progress towards sustainability. By providing a transparent and aggregated framework for assessing sustainability, SAFA seeks to harmonize sustainability approaches within the food value chain, as well as furthering good practices.

1.3 Interpretation of the SAFA Guidelines (3.0) for the SAFA Smallholders App

The SAFA Guidelines provide a multi-purpose framework based on Themes with stated goals for good performance along four dimensions: good governance, environmental integrity, economic resilience and social well-being. This framework can be adapted to the needs of different actors and sectors.

For macro-assessments of food and agricultural enterprises operating in crop, livestock, fisheries and forestry value chains, SAFA Themes are disaggregated into Sub-themes common to all food and agriculture supply chains; thus the 21 Themes' goals are translated into 58 Sub-themes' objectives. In the final level of disaggregation, 116 Default Indicators are established for fulfilling the Sub-themes objectives.

For small-scale agricultural producers, SAFA Themes were analyzed in terms of their relevance to subsistence, semi-commercial and commercial enterprises. Indicators were established for the most relevant aspects of the SAFA Themes. For example, for smallholders, the most relevant aspect of the "Local Economy" goal is hiring regional work force, while local procurement is more appropriate for large enterprises. Another aspect that guided the definition of the SAFA Smallholders App indicators is its capacity-building purpose to improve sustainability performance. For a small-scale producer, improving performance is fundamental for the continuation of farming operations and for family livelihoods, rather than a mere performance appraisal. For this reason, several indicators investigate the practitioner's awareness of a trend rather than on actual measurements (e.g. "Profitability" focuses on smallholder' knowledge of revenue and cost values, rather on recording the actual amounts). Through this process, the SAFA Smallholders App was adapted to operate using a limited number of indicators; 44 indicators, compared to the 116 Default Indicators used in the SAFA Tool.

Considering that small-scale producers do not necessarily have the resources to engage into detailed measurements, SAFA performance scores were simplified to utilize three main thresholds for sustainability: good (green), limited (yellow) and unacceptable (red). This simplified rating is more appropriate given the scope of the SAFA Smallholders App assessment, as small-scale producers need to know where to focus for further improvement.

The SAFA Smallholders App report has been split into three parts and has been adapted to the limitations of a small mobile device screen: the main outcome aggregates scores into a 21 Themes histogram, rather than the 21 Themes polygon used in the SAFA Tool for desktop use. Below the histogram, the names of Themes are grouped according to their rating as green, yellow or red.

In the third section, the SAFA Smallholders App report shows performance' outcomes at different levels of aggregation. A first level reports on rating according to the four sustainability dimensions. Each dimension' rating can in turn be unfolded one-by-one to the level of Themes, Indicators and individual indicator Questions in order to identify exact hotspots and hence, inform on where improvements are required. For example, in a

given setting, the indicator "Safety of Workplace" may require attention on "Affordability of medical care", rather than on other indicator' questions, such as "Accessibility of safe drinking water".

It is important to note that for the SAFA Smallholders App analysis and reporting, each of the sustainability dimension' Themes is weighted equally. For example, in the Environmental Integrity dimension, the Themes of Atmosphere, Water, Land, Biodiversity, Materials and Energy and Animal welfare are weighted equally. Thus, the first level of reporting should be interpreted with care as, depending on the context, one Theme might be more crucial than others to a given enterprise.

1.4 Use of the results

The SAFA Smallholders App is intended primarily for the self-assessment of small-scale producers according to 21 sustainability Themes and 44 Indicators. In some cases, assessment may be facilitated by community workers who interview small-scale producers. This application has been created for the purpose of raising awareness amongst small-scale producers about specific sustainability hotspots in their agricultural activities, with a view to building capacities and improving their performance. The results are displayed directly in the App as a summary. Additional feedback is sent to the SAFA Database to record more details. The App results are both visual (i.e. histogram) and in text form; the latter can be shared via SMS or e-mail. The voicemail option of mobile devices facilitates outreach in local languages and especially, feedback to illiterate producers.

The completion of a SAFA assessment does not allow the entity to use the logo of SAFA or FAO in any way that implies endorsement or certification, as no one is verifying the claim.

2. CONTENT OF THE SAFA Smallholders App

2.1 General functionalities of the App

The mobile application offers six functionalities:

- Download survey from SAFA server;
- Fill-out questions from blank survey;
- Fill-out/edit questions from saved survey;

- Delete saved and blank survey;
- Review report with summary of results and detailed tracking of rating;
- Send results/feedback to interviewee (if not self-evaluation);
- Send results/feedback to FAO.

2.2 Data gathered by the App

The mobile application gathers the answers to the questions of the survey. It also assign a unique identification code to the answered survey, thus providing an ID for the assessed entity.

The App needs certain authorizations for running smoothly. At the start of the installation process, you have to provide for the application to:

- Read phone status and identity;
- Send SMS messages (this may cost you money);
- Record approximate (network-based) location;
- Record precise location (GPS coordinates and network-based);
- Modify or delete contents of your Secure Digital (SD) card;
- Read the content of your SD card;
- Find accounts on the device;
- Read Google service configuration;
- Use accounts on the device;
- Use full network access;
- View network connections;
- View WI-FI connections.

2.3 Feedback generated by the App

The mobile application compiles the answers of the survey as follows:

1. An overview of all 21 Themes and their rating in the Themes' histogram.
2. The three ratings performances, each with a list of accordingly rated Themes (with SMS/e-mail button to send the lists).
3. The ratings in detail for each Dimension, Theme, Indicator and Question (with SMS/e-Mail button to send recommendations for questions rated red).

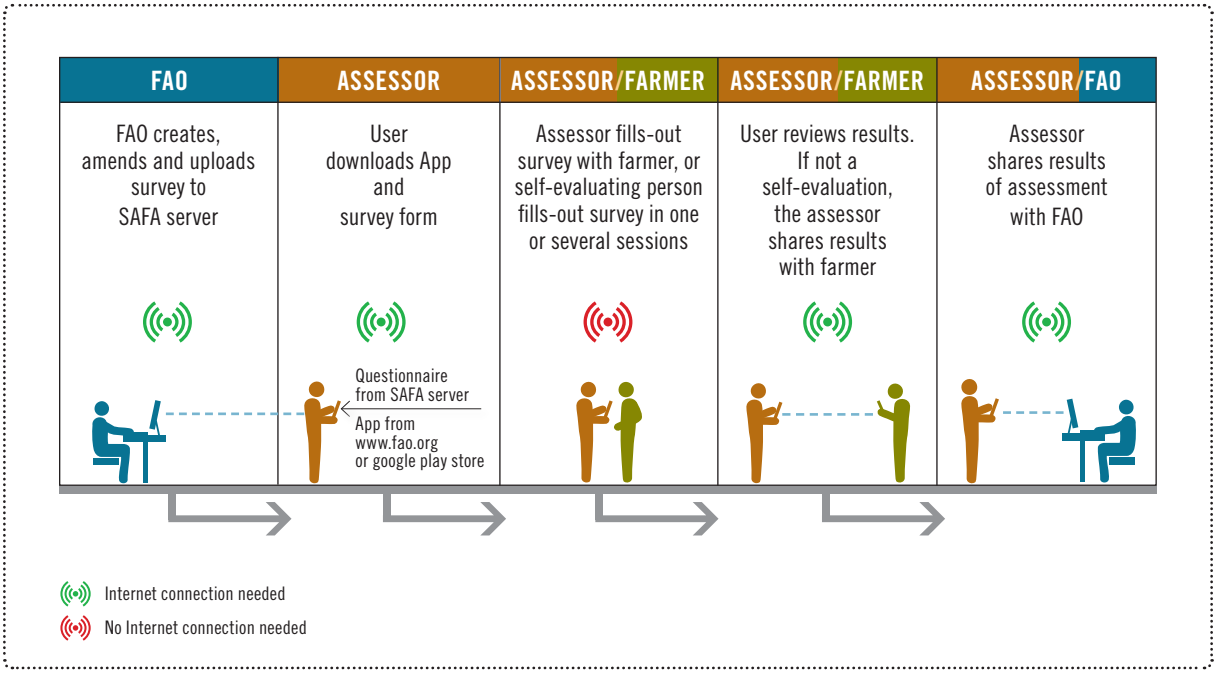
3. STEPS OF THE INFORMATION AND WORK FLOW OF THE SAFA Smallholders App

Through the SAFA Smallholders App, FAO offers a survey form and gathers duly filled and finalized surveys in the SAFA Database. As depicted in the work flow chart below, FAO creates or amends the survey form for the App and uploads it to the SAFA server.

The user has the possibility to download any of the FAO published surveys after installing the App on a mobile device with Android system (at least version 4.0). An online connection, preferably Wi-Fi, is needed for this step.

During the subsequent data gathering process, no online or network connection is needed. All gathered information of one or more surveys will be stored in the mobile device. Self-evaluating farmers can do this step on their own, or in cooperation with co-workers. The survey can be filled-out in one go or in several sessions. The results of the survey can be viewed immediately after finalizing the data gathering.

Figure 1. **Information and work flow of SAFA Smallholders App**



If the assessor chooses to send text messages with summarized results and recommendations to the assessed farmer, a network connection is required; clearly, the mobile phone number or e-mail address of the farmer must be collected during the interview.

The assessor also has the possibility to contribute to the SAFA Database by sending the results to FAO. Here, the data gathered from all around the globe will progressively create a knowledge base on sustainability performance of smallholders. Sharing reports with the SAFA Database will eventually offer an important repository of information that will facilitate benchmarking individual performances with users in similar settings. In case no online connection is available, the results will be sent automatically, as soon as the device has access to an online connection again.

4. USER GROUPS

4.1 Enterprise assessors

The App offers small-scale producers the means to undertake a self-evaluation, provided that the required Android device is available. The person with the best knowledge of management, production and people on the farm should fill the survey. It is important that the person who has been assigned the undertake the self-evaluation receives all necessary information for a complete picture of the farm' sustainability performance.

4.2 Community workers/cooperatives/development agents

FAO encourages community workers, cooperatives and development agents who work closely with small-scale producers to use the SAFA Smallholders App - whenever the SAFA desktop Tool is too complex, or when the assessed producers have low literacy skills. In particular, the development community may receive great value from the SAFA Smallholders App for targeting activities. The results can either be discussed immediately with the assessed producer, or shared at a later stage via SMS, e-mail or the voicemail functionality of the mobile device.

5. INSTALLATION OF SAFA Smallholders App

5.1 Requirements of mobile device

- Mobile device with Android 4.0 or higher;
- Online access via Wi-Fi or service network (for installation of the App and download and upload of the survey);
- 15 MB driver space.

5.2 Download from FAO website

The default settings of the Android system need to be changed to allow download from sources other than the Google Play Store. Go to settings of the device on which you want to use the mobile application and in the security section allow the installation of apps that have been downloaded from "unknown sources". Load the browser and open the FAO webpage for SAFA:
www.fao.org/nr/sustainability/sustainability-assessments-safa/safa-small-app

Here, you first have to register or login if you already have login credentials before you download a so called apk-file to the file system of your mobile device. Go to the folder in your file system to which you downloaded the file (usually "Download") and open the apk-file with the SAFA icon by double tapping. If you have not allowed installing apps from unknown sources, a warning will guide you to the settings. If applicable, return to the installation dialog. Accept the access rights for the application (see section "Data gathered by the App"). The application will be installed automatically and can be found in the App menu as soon as the installation is finished.

5.3 Download from Google Play Store

Load the Google Play Store on the device on which you want to use the mobile application. Enter "SAFA Smallholders App" into the search bar. Choose from the search result the App with the name "SAFA Smallholders App" that has the same icon as displayed below and has been published by FAO. After opening the application' description, tap on "install"

and accept the access rights for the application (see section "Data gathered by the App"). The application will be installed automatically and can be found in the App menu as soon as the installation is finished.

Figure 2. **Icons of SAFA Smallholders App and Google Play Store**

Icon of SAFA Smallholders App

Icon of Google Play Store

6. USING SAFA Smallholders App

6.1 Structure of the App

The application has three main sections:

Survey and report (yellow):

Open a blank survey to start; continue with a survey that had been saved previously. Review the results of surveys that have been completed in the survey section and send feedback to farmers via the SMS/e-mail functionality; delete any saved surveys that are not needed anymore.

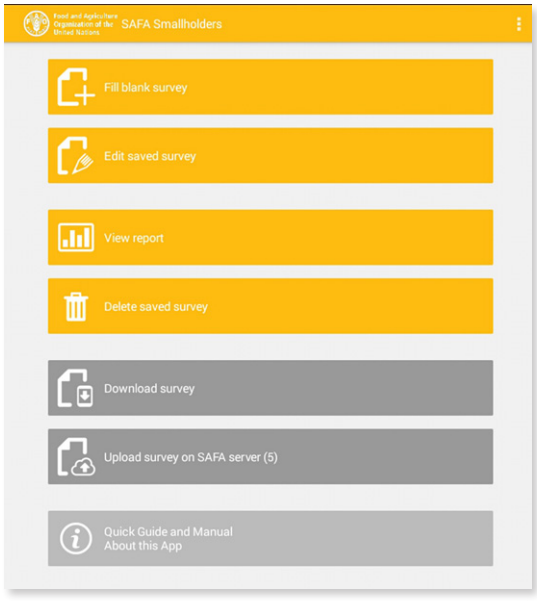
Download and upload (dark grey):

Access the SAFA server for downloading the survey; upload finalized surveys to the SAFA Database.

Support (light grey):

Access a Quick Guide and this User Manual.

Figure 3. **Main menu of SAFA Smallholders App**



6.2 Open mobile application

In order to open the App on a mobile device, go to the application menu and tap on the icon of the SAFA Smallholders App. The main menu of the SAFA Smallholders App will open.

6.3 Download survey from SAFA server

The administration' rights of the survey are held by the FAO/SAFA Secretariat. Users are granted permission to download the survey that has been published by FAO for the SAFA Smallholders App.

The menu button "Download survey" presents the available survey on the SAFA server. An online connection is needed for the access. The App will use default login credentials unless you have been provided with separate login data. Download the survey to your offline survey library on your mobile device by checking it and tapping on "Get selected". You will find the blank survey in the menu item "Fill blank survey".

6.4 Fill-out survey

The questions are numbered according to their order of appearance in the survey. Whenever single questions are skipped because of branching logic, the numbering of questions and the progress information at the end of the question "(x/100)" will continue with the numbering after the skipped questions, too.

The full survey can also be found in Appendix 2 of this document, including the calculation rules applied for results.

6.4.1 Navigating the survey

To navigate through the survey, there are the following options:

- Use the arrows at the bottom of the screen to go forward and backward;
- Swipe with your fingers over the screen either from right to left (forward) or from left to right (backward);
- Use the overview of status to jump between sections (see "6.4.5 Overview of status and jumping between questions"). Return to the main menu by tapping on the standard return button on the lower left. Each time you leave the survey like this, you will be asked to save the survey.

Figure 4. **Navigating the survey**

6.4.2 **Survey sections**

Questions in the survey are grouped into sections related to the SAFA Smallholders App Indicators (Table at the beginning of Appendix 1 "Overview of SAFA Smallholders App Dimensions, Themes, Indicators and Questions"). However, the order of questions is adapted to an appropriate sequence for an interview. Questions that influence the rating of more than one indicator are only asked once.

Each section of the survey starts with a short description of the Indicator that can be opened by tapping on "show/hide hint". Read this description to better understand the context of the questions that follow. The information also functions as a training source for interviewees (in cases where assessments are conducted by a facilitator/community knowledge worker), because it explains the reason and background of the Indicator. All descriptions can also be found in the Appendix 1 of this document.

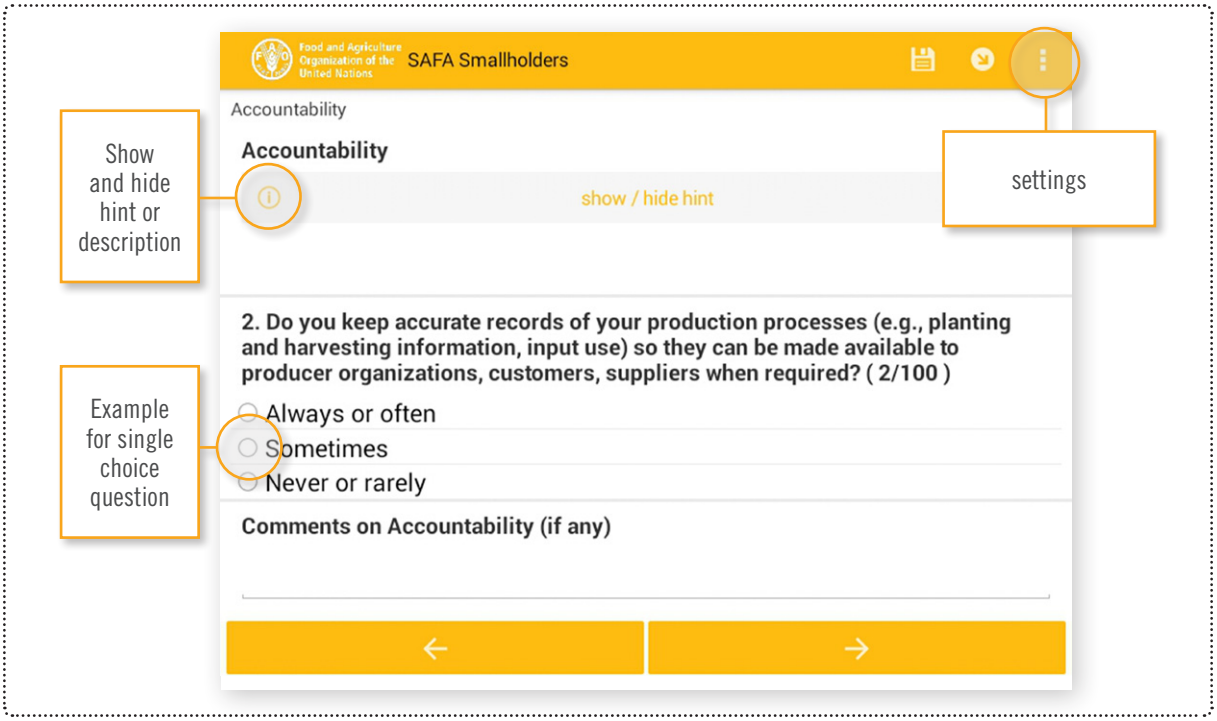
6.4.3 Type of questions

For the most part, there are two types of questions: single and multiple choice answers. Some of these questions are used as trigger questions. Their answer will trigger the opening of the next question, according to a branching logic (e.g. depending on the answer to "Do you produce crops, animals or agricultural products for sale or trade?", commercial questions might be skipped).

In the first and last sections of the survey, and at the end of each group of questions that is linked to one indicator there is space for explanations and comments. Therefore, you can also find input fields for text, numbers, date and GPS reference. The device automatically offers the right input interface for the type of question (see Figure 5).

Multiple choice: Tap all answers that apply, multiple answers can be checked at once (symbolized by squared bullet).
Single choice: Tap the single answer that applies, only one answer can be checked (symbolized by circular bullet).
Text: Tap into the field and fill-in text.
Numbers: Fill in whole numbers or decimals.
Geopoint: The collection of GPS coordinates (geopoint) requires the location functionality to be activated on your device. The best availability of GPS is outside of buildings. Tap on "record location" and wait for the App to localize the device. A dialog "Please wait. This could take a few minutes." Pops-up. As soon as the GPS coordinates have been collected, tap on "record location" to save. If GPS coordinates could not be collected because the GPS signal is not strong enough, but you do know the GPS coordinates of the farm, go back to question "Does the interview take place on or close to the farm?" and answer with "No". In the next step, you will be asked to type in the coordinates.
Date and time: This type automatically records the date and time of the start of the survey. This information is used to create the unique code for the assessed entity.

Figure 5. **Example screen for a question**



6.4.4 Remove response

If you want to delete the answer given to a single question, tap on the question and hold your finger for a few seconds on the screen. A context-sensitive menu pops-up with the option “Remove response” to confirm the deletion. The answer options of the single question will be blank again. This works for the questions types: single and multiple choice, text, numbers and collection of GPS coordinates.

6.4.5 Overview of status and jumping between questions

To see which questions have already been answered and which are still open, tap on the symbol in the upper right corner. A screen opens that shows all questions and the answers to the questions already given. From here you either:

- return to the last question by tapping on the standard return button in the lower left corner;
- jump to another question by tapping on it;
- jump to end or start by tapping the button “Go to start” or “Go to end”.

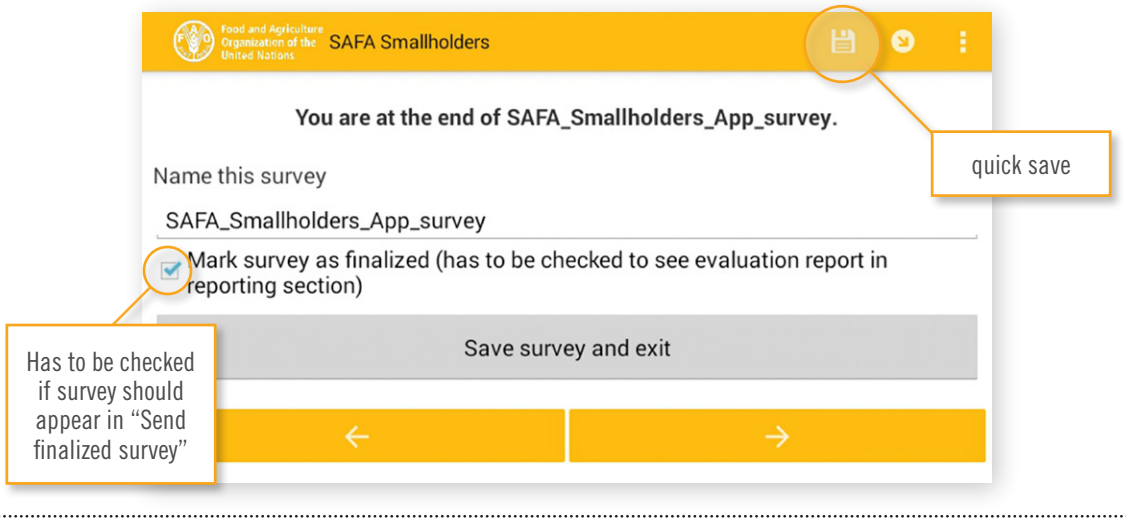
6.4.6 Save and name your survey

For saving the survey while you are still filling it out, tap on the quick save symbol on the top of the screen. You will find the saved survey in the main menu item "Edit saved survey". The saved survey is automatically named the same way as the blank survey. It is recommended to save the survey regularly while entering answers to avoid any data losses (for example because of low battery).

If you want to store the survey with another name, go to the end of the survey by tapping on the overview symbol at the top of the screen and then on the button "Go to end". Tap into the text field, enter a new name and tap "Save survey and exit". In case the survey is final, ensure that the tick box "Mark survey as finalized" is checked (see more in "Finalize survey"). Again, you will find the saved survey in the main menu item "Edit saved survey" and another copy in the main menu items "Upload survey on SAFA server" and "View report", if marked as finalized.

In both cases, the information on date and time of saving is displayed underneath the name of the saved survey.

Figure 6. **Save name and finalize survey**



6.5 Edit saved survey

All saved surveys can be accessed through the main menu item "Edit saved survey". Search for the saved survey with the right name and time stamp. Double tap on the item in order to open it.

6.6 Delete surveys

Whenever you want to delete a blank or edited survey, go to the main menu item “Delete saved survey”. Right underneath the header, you can choose between “Saved survey” and “Blank survey”. Select those items that you want to delete and click on “Delete Selected”.

6.7 View Report

After finalizing a survey, the results can be opened by tapping on “View report” in the menu. To learn more about the calculation rules go to “7. Rating in the SAFA Smallholders App”.

6.7.1 Finalize survey

To finalize the survey, first open the survey and then go to the end of it by tapping on the overview symbol and then on the button “Go to end”. Check the tick box “Mark survey as finalized” and tap on “Save survey and exit”. You will find the survey in the menu item “Upload survey on SAFA server” and “View report”. A copy will be kept in the “Edit saved survey” section for any further editing until you decide to delete it. It will also be automatically deleted, as soon as you upload the survey to the SAFA server. Only the survey results in the reporting section will remain in that case.

6.7.2 Browse survey results

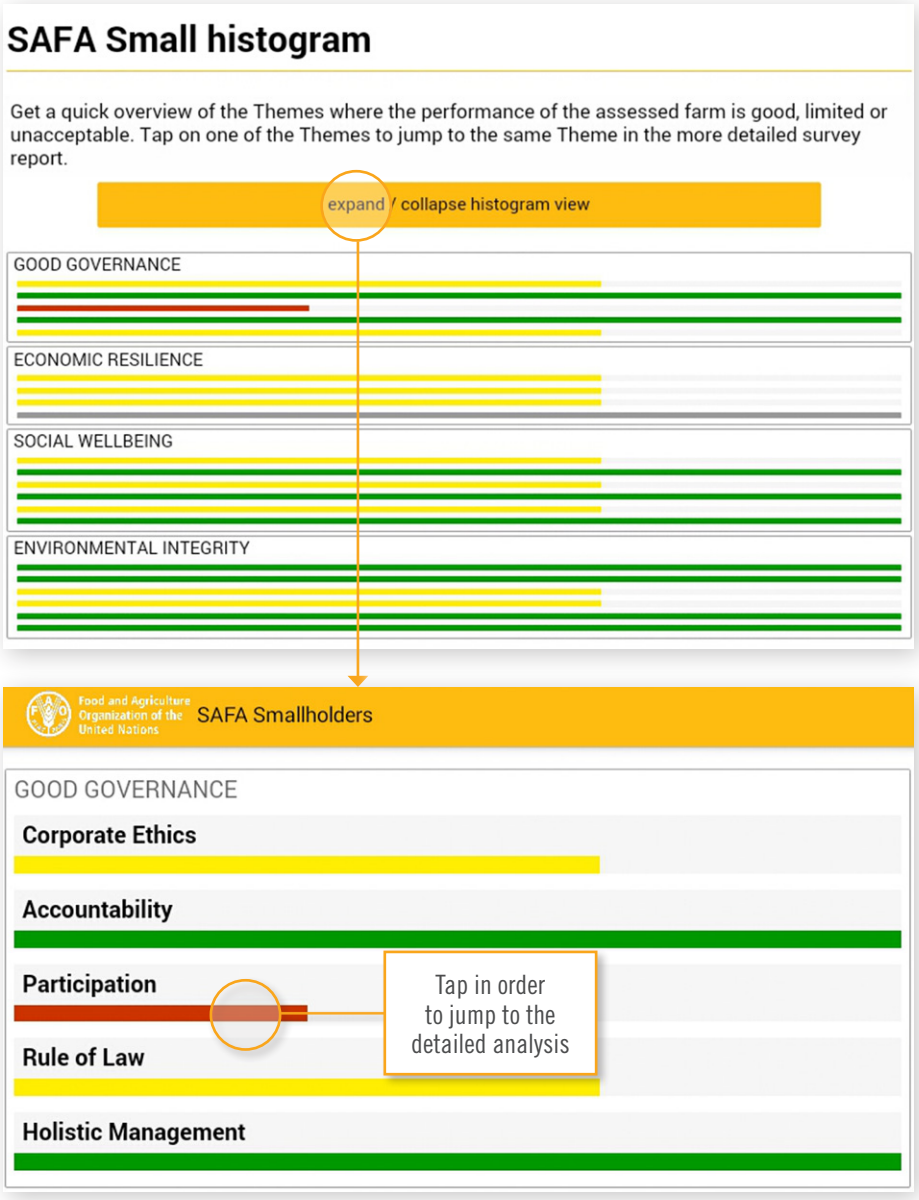
Open the results of a survey by first tapping on “View report” in the main menu and then on the survey that you want to examine. It might take a few seconds for the Report to open. The Report is split into three parts:

- Quick overview of all 21 Themes scores in the SAFA Small histogram;
- Overall analysis of scoring;
- Survey report with detailed analysis of the sustainability Dimensions, Themes, Indicators and Questions.

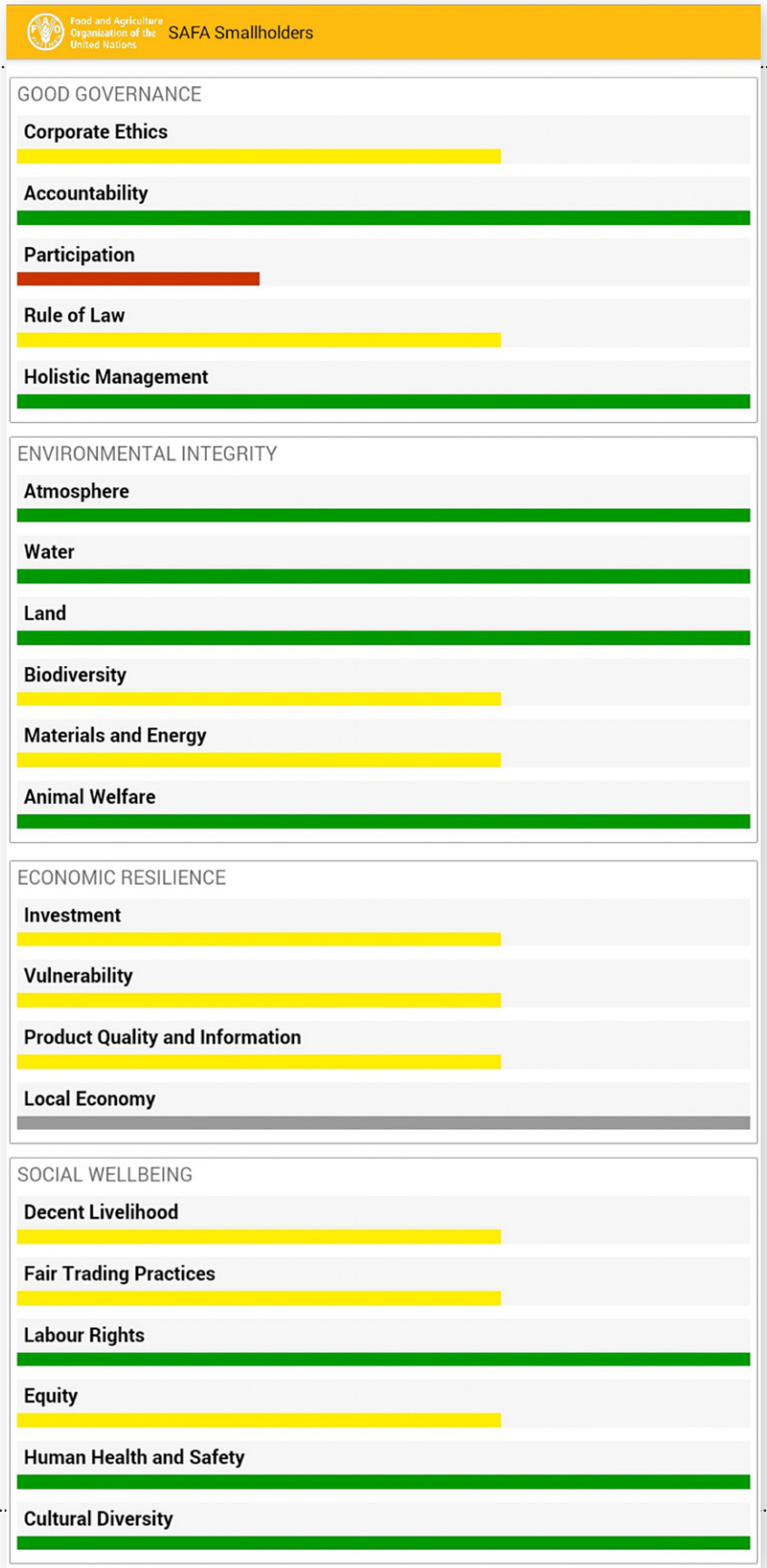
SAFA Small histogram

This overview offers a first impression of the overall results of the assessment. The performance of all SAFA Theme's is depicted through a green/yellow/red coloured histogram, all non-relevant Themes are grey. The overview unveils trade-offs and synergies among the different sustainability Themes and mainly, performance hotspots (i.e. red). Tap on a Theme in the expanded view in order to jump to the detailed analysis in Part 3 of the Report.

Figure 7. **Example of SAFA Smallholders App histogram**



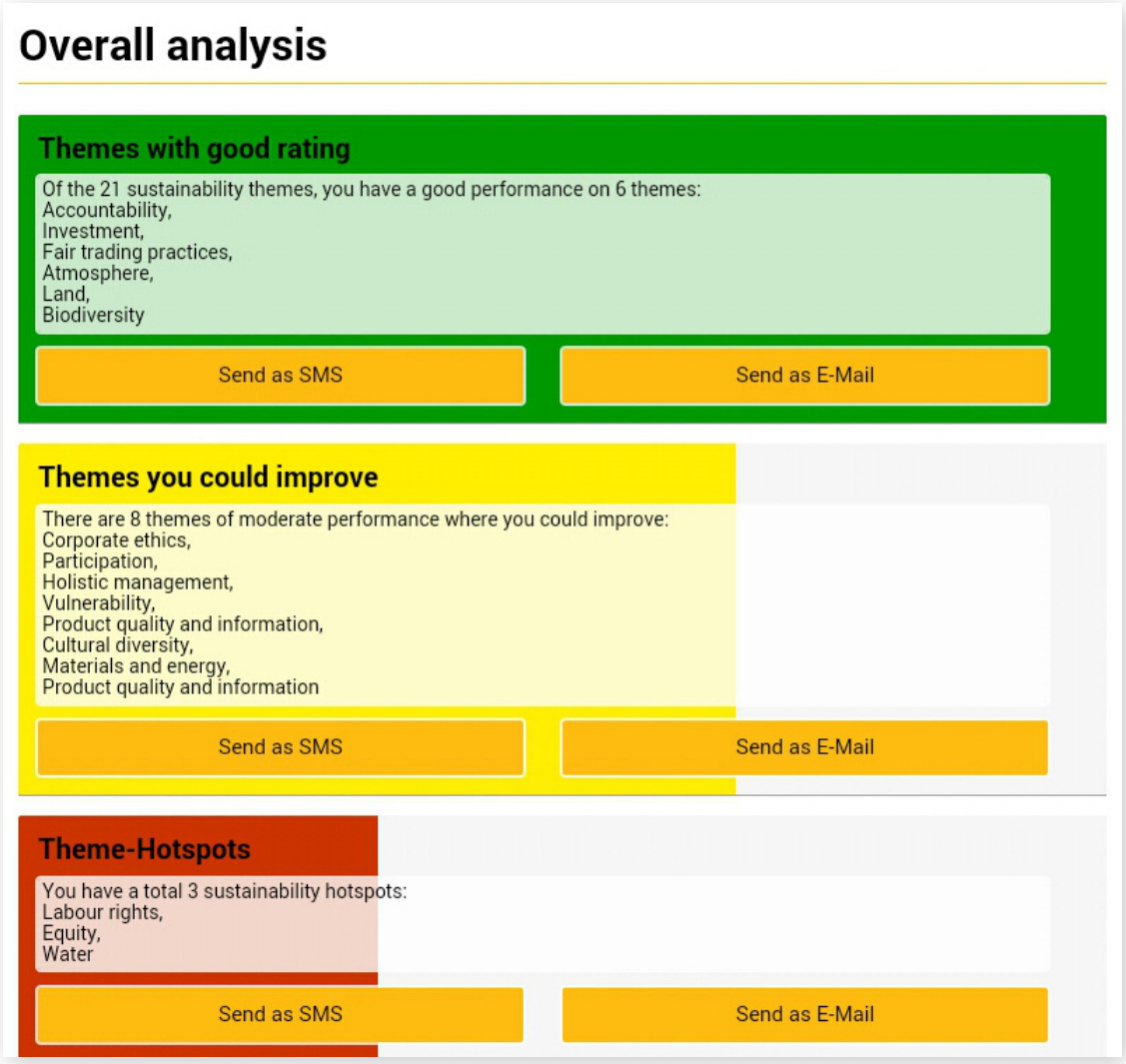
Full view of the histogram on the next page


Food and Agriculture Organization of the United Nations
SAFA Smallholders
GOOD GOVERNANCE
Corporate Ethics
Accountability
Participation
Rule of Law
Holistic Management
ENVIRONMENTAL INTEGRITY
Atmosphere
Water
Land
Biodiversity
Materials and Energy
Animal Welfare
ECONOMIC RESILIENCE
Investment
Vulnerability
Product Quality and Information
Local Economy
SOCIAL WELLBEING
Decent Livelihood
Fair Trading Practices
Labour Rights
Equity
Human Health and Safety
Cultural Diversity

Overall analysis for scoring

A list of Themes by order of performance score (i.e. green, yellow, red) is provided. A score is only displayed when at least one Theme has been rated accordingly.

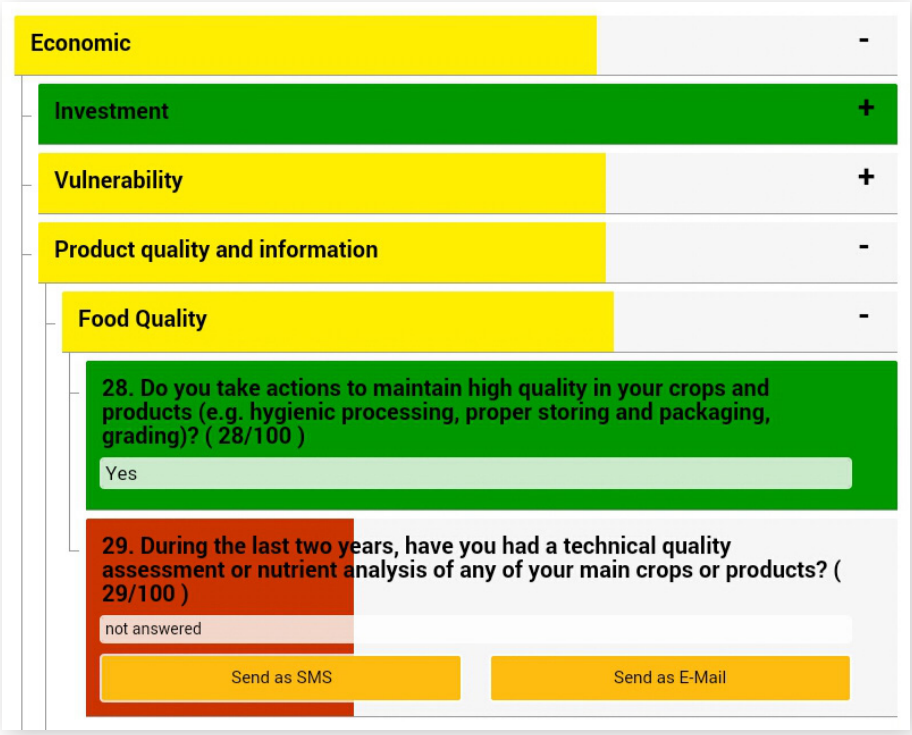
Figure 8. **Example of overall analysis**



Survey report

The complete survey can be browsed from the Dimension to the Question levels in the detailed analysis. Tap on the plus (“+”) or anywhere on the grey bar to unfold subordinated evaluation information. Tap again to collapse. In the beginning of the section “Survey report” the buttons “show all” and “hide all” do help to either unfold or collapse all Dimensions, Themes, Indicators or Questions.

Figure 9. **Example for survey report for Economic / Food quality**



6.8 Sending feedback via SMS or e-mail

In cases where the assessment has been conducted by a third person, the SAFA Smallholders App Report includes two types of outcomes that can be communicated via SMS or e-mail to the interviewed partner/farmer:

- List of Themes grouped by rating according to Step 2 ("Overall analysis") of the Report;
- Recommendation for each Question that has been evaluated as "unacceptable" (red) in step 3 ("Survey report"). The text is based on the descriptions of the Indicators (see Appendix 2).

Use the buttons "Send as SMS" or "Send as e-mail" in the SAFA Smallholders App Report to open either the application for SMS or for e-mail including text and phone number or e-mail address in cases where it has been collected during the survey. In the messaging/e-mail app you can amend the text according to your needs, add more recipients and send it to the interview partner/farmer.

If you want to use the voice mail function of your mobile device, tap on the button "Send SMS". The messaging App of your mobile device will open. In most cases, you can now add voice as media for which a record player App will be started. The message will be send as MMS. This is why costs might be higher than sending SMS and you need to be sure that the addressed number is able to receive MMS. The process of adding voice mail to a MMS might vary depending on your device or your cell phone provider.

6.9 Sending results to FAO

In the main menu "Upload survey on SAFA server" you have the option to send the filled-out survey and its result to the SAFA Database located in FAO Headquarters.

As identification reference, a code will be generated from the user account name, name of interviewee and date stamp. In general, the user account name is the default account used for downloading the survey. For queries in the Database, the feedback data will be made anonymous.

At the end of each group of questions and at the end of the survey, you can enter comments that you may wish to address to the FAO. They will be automatically sent, together with the filled-out survey.

To send the results, go to the main menu and tap on the button “Send finalized survey”. Only those surveys marked as finalized will appear here. Make sure that you checked the tick box “Mark survey as finalized” at the end of the survey before you save it.

Select the survey(s) you want to send and tap on “Send Selected”. In case no online connection is available, the results will be sent automatically as soon as the device has an online connection again. Activate in the “General Settings” the auto send function either via Wi-Fi or network.

6.10 Settings of App

6.10.1 General settings

The general settings can be reached via tapping on in the upper right corner and then on “General settings”. Here you find the sections:

- Server settings
- Auto send
- User Interface

Server settings

In the case you have been provided with individual login credentials you can “Configure platform settings” here and change from default account to your individual username and password.

Auto send

Mark either of the two options “Auto send with Wi-Fi” or “Auto send with network” when you want the App to automatically send all finalized surveys to the SAFA Database when an Internet connection becomes available. You will receive a notification when the survey(s) have successfully been transmitted.

User interface

Tap on “Navigation” to change how you browse through the survey, by horizontal swiping only, tapping on the forward/backward buttons only, or by both options.

- Change the “Text font size” in a range from extra-small to extra-large.
- Check the box for “Default to finalized” to automatically mark a survey as finalized when you reach the last page of the survey and tap on “Save survey and exit”.

- Check the box “Delete after send” for the case that you want to delete finalized surveys and media after sending them to the SAFA server.
- “Enable hi-res video” is an option in case the survey will include the possibility to capture videos in the future.

6.10.2 Admin settings

The admin settings allow to customize the main menu, the general settings and the entry items in the survey by selecting and deselecting single items. The change of setting is only valid for the single mobile application. Save the changes by tapping on and then on “Save settings to Disk”.

7. RATING IN THE SAFA Smallholders App

Though the SAFA Smallholders App follows the SAFA Guidelines, there are some changes in how the ratings of the overall performance scores are aggregated, as compared to the SAFA Tool (version 2.1.50). While in the latter, the highest aggregation level is at the Theme level, the SAFA Smallholders App aggregates scores at the Dimension level.

The rating and weighting of the 100 answers of the survey determines the performance of the 44 Indicators and consequently, the scores of the 21 Themes and ultimately, of the four Dimensions. To understand which Question points to which Indicator(s) and therefore, to which Theme and Dimension, consult the Table in Appendix 1.

As described earlier in the section “Interpretation of SAFA Guidelines (3.0) for SAFA Smallholders App”, SAFA performance scores were simplified to three main thresholds: green for “good” performance, yellow for “limited” performance, red for “unacceptable” performance.

7.1 Rating of questions

Each answer in the survey (excluding profile questions and comments) is either assigned to one of the three performance thresholds described above, or can be neutral. Questions are neutral in three cases, including when:

- A question functions only as a trigger question, without any indication on sustainability performance, so that the answer is neutral (e.g. "Do you hire paid labour?" "Yes" or "No");
- A single answer option gives no indication on sustainability performance (despite other answers to the same question);
- The question is "not applicable" for the interviewee but no trigger question was applied to exclude it via branching logic.

Whenever the answer to a question is not filled-out, it will be automatically rated as "unacceptable" (red) in the report, unless the question has been skipped because of the branching logic of the survey. In that case, it will also be skipped in the calculation of the rating.

7.1.1 Rating of single and multiple choice questions

For all single choice questions, the rating is derived from the single answer given (see survey in Appendix 3). For all multiple choice questions, the rating for the question is based on individual rules.

Example of a rating rule for one of the multiple choice questions: for Question "8. Elements of plan" that applies to the Indicator "Sustainability management plan", the tool counts the amount of possible choices checked. For three choices or more the questions receives a good (green) rating, for two choices the question is rated as limited (yellow), for one or less choices the questions is rated as unacceptable (red).

Figure 10. **Example for rating of multiple choice question**

EXAMPLE FOR GOOD RATING (GREEN)	EXAMPLE FOR LIMITED RATING (YELLOW)	EXAMPLE FOR UNACCEPTABLE RATING (RED)
8. Which elements are part of your plan? (8/100)	**8. Which elements are part of your plan? (8/100)**	**8. Which elements are part of your plan? (8/100)**
☑ Finances	☑ Finances	☑ Finances
☐ Soil fertility management	☐ Soil fertility management	☐ Soil fertility management
☑ Environmental management	☐ Environmental management	☐ Environmental management
☐ Expansion/Staff	☐ Expansion/Staff	☐ Expansion/Staff
☑ Health and Safety	☐ Health and Safety	☐ Health and Safety
☐ Marketing	☐ Marketing	☐ Marketing
☑ Quality	☑ Quality	☐ Quality
☐ Processing or adding value	☐ Processing or adding value	☐ Processing or adding value
☐ Other	☐ Other	☐ Other

7.1.2 **Questions with "no go" answers**

There are 16 questions in the survey that have answer options that can cause a whole Indicator to be rated as red, even if other Questions are green. These so-called "no go" answers are listed below, by order of Dimension, with Question number as given in the survey and related Indicator:

Environmental Integrity:

- 68. Animal well-being (Animal health and welfare)

Economic Resilience:

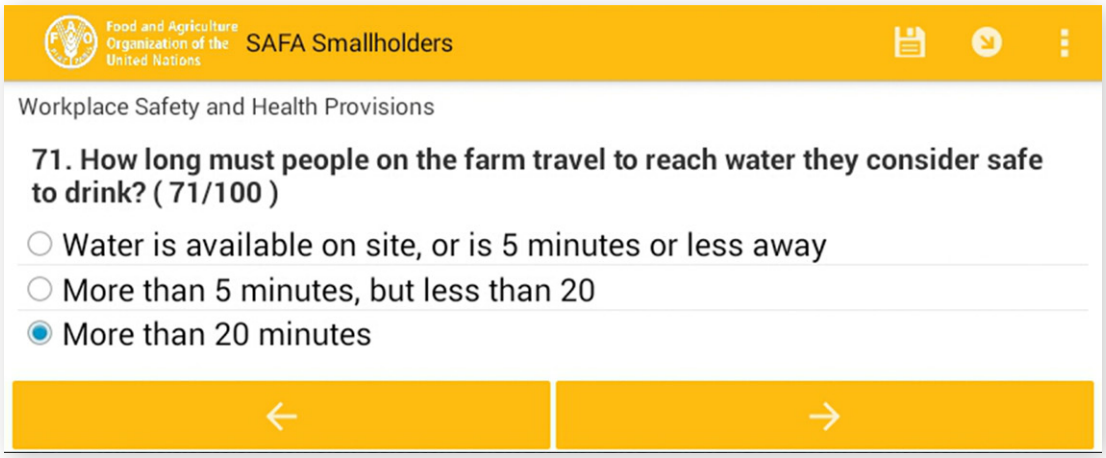
- 9. Commercial production (Profitability)
- 14. Positive farm revenues (Profitability)
- 18. Relationship with buyer(s) (Stability of market)
- 22. Loan source (Liquidity)
- 23. Loan received (Liquidity)
- 30. Certified production (Certified products)
- 46. Hazardous pesticides (Hazardous pesticides)
- 47. Pesticides label (Hazardous pesticides)
- 48. Pesticides mixing (Hazardous pesticides)

Social Wellbeing:

- 79. Equal pay (Employment relations)
- 69. Distance of medical care (Workplace safety and health provisions)
- 70. Affordability of medical care (Workplace safety and health provisions)
- 71. Distance of safe drinking water (Workplace safety and health provisions)
- 74. Pesticide protective gear (Workplace safety and health provisions)
- 92. Meals' availability (Food sovereignty)

Example of a "no go" question: the following choice of answer option would cause Question "71. Distance of safe drinking water" to be red and with it the whole related Indicator "Workplace safety and health provisions".

Figure 11. **Example for question with "no go" answer option**



7.2 Rating of Indicators

In Appendix 1, it is shown that in most cases, multiple Questions influence the rating of a single Indicator. For most cases, Questions have the same weight of "1". However, a some questions reveal practices with a higher impact on the sustainability of a small-scale producer and therefore, their weight for the calculation of the Indicator rating has been doubled. The weighting of Questions is indicated in Appendix 3.

Questions that have been skipped because of branching logic are not taken into account for the rating of the related Indicator. Unanswered Questions that might have fallen-out because of skip logic, and for which the related trigger questions have not been answered, are included into the rating as red.

The following values are assigned to the thresholds:

1 = unacceptable (red)
2 = limited (yellow)
3 = good (green)

At the aggregate level, ratings are averaged respecting the double count of answers with weight "2" and rounded up or down whatever is closer (2.7 = 3 = green; 1.3 = 1 = red). Whenever the calculation of a rating value lies precisely between two ratings, the lower rating is taken (1.5 = unacceptable; 2.5 = limited).

7.3 Rating of Themes and Dimensions

The same calculation rules for Indicators are also applied to the rating of Themes and Dimensions; except that all Themes and Dimensions have the same weight of "1".

APPENDIX 1
OVERVIEW OF SAFA Smallholders App DIMENSIONS, THEMES, INDICATORS AND QUESTIONS

THEMES (21)	INDICATORS (44)	QUESTIONS[1] (100)
GOOD GOVERNANCE		
Corporate ethics	Mission explicitness	1. Farm values
Accountability	Accountability	2. Accuracy of records
Participation	Participation	3. Organizational membership
		4. Value of membership
	Conflict resolution	5. Conflict resolution
Rule of law	Tenure rights	95. Tenure security
		96. Tenure constraints
	Legitimacy	32. Compliance
Holistic management	Sustainability management plan	6. Management plan
		7. Plan success
		8. Elements of plan
ENVIRONMENTAL INTEGRITY		
Atmosphere	GHG mitigation practices	33. Tree coverage
		34. Change in tree cover
		36. Tillage method
		37. Ruminant production
		38. Manure management
		41. Fertilizer type
	Air pollution prevention practices	39. Indoor air pollution
		40. Burning fields

[1] Numbering of questions follows the order of appearance in the survey.

THEMES (21)	INDICATORS (44)	QUESTIONS[1] (100)
Water	Water conservation practices	55. Water use reduction
		56. Irrigation
		57. Type of irrigation
	Water pollution prevention practices	45. Synthetic pesticides
		58. Water pollution
Land	Soil improvement practices	41. Fertilizer type
		42. Soil fertility
	Land conservation and rehabilitation practices	36. Tillage method
		44. Soil management
		49. Land use and land cover change
Biodiversity	Ecosystem diversity	49. Land use and land cover change
	Species conservation practices	40. Burning fields
		50. Species conservation
		51. Crops disease management
		52. Diversity of production
	Saving seeds and breeds	53. Locally-adapted varieties
		54. Sourcing seeds and breeds
Materials and energy	Nutrient balance	43. Fertilizers application
	Renewable and recycled materials	59. Biomass management
		60. Materials recycling
	Energy use	61. Energy efficiency
		62. Renewable energy source
		63. Renewable energy type
	Food loss and waste reduction	64. Pre- and post-harvest food losses
		65. Food loss reduction
Animal welfare	Animal health and welfare	66. Access to veterinary care
		67. Livestock disease
		68. Animal well-being

THEMES (21)	INDICATORS (44)	QUESTIONS[1] (100)
ECONOMIC RESILIENCE		
Investment	Community investment	97. Participation in community projects
	Profitability	9. Commercial production
		10. Knowledge of farm revenue
		11. Labour costs
		12. Fertilizers, pesticides and seeds and plant materials costs
		13. Animal feed, veterinary and juvenile stock costs
		14. Positive farm revenues
Vulnerability	Product diversification	15. Products and services on sale
		16. Value addition
	Stability of market	17. Diversity of buyers
		18. Relationship with buyer(s)
		19. Choice of market
	Liquidity	22. Loan source
		23. Loan received
		24. Savings
	Safety nets	25. Crop insurance
		26. Risk management plan
		27. On-farm measures
Product quality and information	Hazardous pesticides	51. Crop disease management
		46. Hazardous pesticides
		47. Pesticides label
		48. Pesticides mixing
	Food quality	28. Products quality
		29. Quality assessment
	Certified products	30. Certified production
		31. Ratio of certified products
Local economy	Regional workforce	89. Regional workforce

THEMES (21)	INDICATORS (44)	QUESTIONS[1] (100)
SOCIAL WELLBEING		
Decent livelihood	Quality of life	98. Quality of life
	Wage level	99. Producer' living wage
		100.Worker's living wage
	Capacity development	77. Training
Fair trading practices	Fair pricing	20. Understanding buyer prices
		21. Knowledge of market prices
Labour rights	Employment relations	79. Equal pay
	Freedom of association and right to bargaining	80. Freedom to associate and bargain
	Forced Labour	81. Forced Labour
	Child Labour	82. School attendance
Equity	Non-Discrimination	83. Non-Discrimination
	Gender equality	85. Men decisions
		86. Women decisions
		87. Girls and boys education
		88. Men and women training
Human health and safety	Workplace safety and health provisions	69. Distance of medical care
		70. Affordability of medical care
		71. Distance of safe drinking water
		72. Access to sufficient and adequate water
		73. Pesticide application
		74. Pesticide protective gear
		75. Farm injuries
		76. Risk avoidance
Cultural diversity	Food sovereignty	90. Right to choose production type
		91. Access to culturally appropriate food
		92. Meals' availability
	Indigenous knowledge	94. Link with indigenous community

APPENDIX 2

SAFA THEME GOALS AND DESCRIPTION OF SAFA Smallholders App INDICATORS

SUSTAINABILITY DIMENSION: GOOD GOVERNANCE

G 1. Corporate Ethics

Goal: The enterprise has explicit, publicly available sustainability objectives and effective means of implementation and verification, as well as of identification and proactive addressing of major sustainability challenges.

Mission Explicitness

Description: The mission statement expresses a farm's goals and values. It guides the way the farm is managed. The mission statement can be formally written down. It could also be unwritten, based on shared values that are a way of life (e.g., community, traditional or cultural values that are part of everyday customs). The mission statement should be clear and everyone on the farm should understand the mission statement.

G 2. Accountability

Goal: The enterprise assumes full responsibility for its business behavior and regularly, transparently and publicly reports on its sustainability performance.

Accountability

Description: Accountable producers are open and transparent. They provide stakeholders (e.g. customers, producer organizations) with information about their products and production processes, so that customers can make informed choices about what they are buying. This is achieved by keeping accurate production records. Accountable producers are responsible for their products and processes on the farm.

G 3. Participation

Goal: All stakeholders substantially affected by the enterprise's activities are identified, empowered and invited to share decision-making on activities impacting their lives and having major environmental impacts.

Participation

Description: Participation asks if producers are involved in an agriculturally focused organization and how much value they have received from the organization (e.g., from access to information, services, markets, better prices).

Conflict Resolution

Description: Participation is important for conflict resolution. Talking and listening to stakeholder groups can help producers to peacefully resolve any conflicts. Stakeholders are all those who are affected by the producer's activities (e.g., local communities, consumers, farmers and others).

G 4. Rule of Law

Goal: The enterprise is uncompromisingly committed to fairness, legitimacy and protection of the Rule of Law, including the explicit rejection of extortion and corruption and of the use of resources that are under legal dispute, whose use contradicts international agreements, or which are considered illegitimate by affected stakeholders. Moreover, enterprises will proactively work to improve the protections offered to the environment, vulnerable workers and communities by seeking to strengthen applicable laws and codes in concert with affected stakeholders.

Tenure rights

Description: Tenure rights involve the producer‘s perceived security of the right to occupy and farm the area where he/she currently farms. It also includes whether tenure constraints affect the ability of the producer to implement practices or make investments toward the sustainability of the operation - where tenure rights are strong, smallholders are better able to invest in sustainable farming practices; where they are weak, it is difficult to develop and invest in sustainable farming methods.

Legitimacy

Description: Legitimacy refers to compliance with all applicable laws, regulations, and standards voluntarily entered into by the producer (e.g. organic standards).

G 5. Holistic Management

Goal: Production and procurement are managed, and accounting is done, with equal consideration of all dimensions of sustainability and of the trade-offs and synergies linking them.

Sustainability Management Plan

Description: Successful and sustainable producers will have a plan to minimize risk and improve their sustainable management. This indicator establishes whether the producer is working on or carrying-out a sustainability management plan and how successful the plan has been. Plans will ideally be written but may be oral or pictorial. The plan should cover each of the environmental, social and economic dimensions of sustainability.

SUSTAINABILITY DIMENSION: ENVIRONMENTAL INTEGRITY

E 1. Atmosphere

Goal: The enterprise's actions contain greenhouse gases to the extent possible and do not release quantities of ozone-depleting substances and air pollutants that would be detrimental to the health of ecosystems, plants, animals or humans.

GHG Mitigation Practices

Description: Greenhouse gas emissions contribute to climate change which can have many negative impacts on producers (e.g. more frequent droughts and floods). It is not practical to accurately calculate the GHG emissions of smallholders. Instead, these questions focus on the most important practices for smallholders to reduce their GHG emissions:

- Maintaining tree cover;
- Using natural fertilizers based on assessed needs;
- Reducing tillage of soil;
- Manure management for livestock systems.

Air Pollution Prevention Practices

Description: Air pollution can have negative effects on the environment and human health. This indicator looks at practices to decrease both indoor and outdoor air pollution:

- Indoor - smokeless fuel or a chimney can be used to vent smoke when cooking;
- Outdoor - burning land should be avoided.

E 2. Water

Goal: Freshwater withdrawal and use do not hinder the functioning of natural water cycles, activities do not contribute to water pollution that would impair the health of humans, plants and animal communities.

Water Conservation Practices

Description: Clean water is needed for agricultural use. Water shortages are expected to become worse in many regions because of climate change and more demand. Agriculture uses 70% of all abstracted water. Some types of irrigation systems are more efficient than others:

- Drip irrigation – most efficient;
- Manual irrigation (hand watering) – somewhat efficient, but requires a substantial amount of labour;
- Surface irrigation – least efficient.

Water Pollution Prevention Practices

Description: Water pollution is a risk to the health of humans, animals and the environment. Many agricultural activities can cause water pollution (e.g. due to runoff) if they are not properly managed:

- Cultivating crops and/or pasturing animals directly next to natural water bodies;
- Using synthetic pesticides or cleaning pesticide application equipment in natural water bodies;
- Discharging untreated domestic or processing water into natural water bodies.

E 3. Land

Goal: No land is lost due to surface sealing or mismanagement of arable lands and pastures, and soil fertility is preserved and enhanced.

Soil Improvement Practices

Description: Healthy soils are essential for growing crops. They also provide vital services such as carbon storage, water purification, nutrient cycling. Practices that increase soil fertility include:

- Natural fertilizer use;
- Cover cropping;
- Nitrogen fixing annual or perennial plants (will vary by region, e.g., alfalfa, clover, pulses, soybeans, vetch, locust, carob);
- Intercropping;
- Crop rotations.

Some cover crops are nitrogen-fixing plants – in those cases, mark both practices in the survey.

Land Conservation and Rehabilitation Practices

Description: Practices to conserve soils and prevent erosion help maintain productivity, such as:

- No-till and reduced tillage systems (conventional tillage incorporates most residue into the soil; reduced tillage retains some residues on the field; no-till leaves the soil relatively undisturbed);
- Maintaining permanent soil cover through mulch or planted soil cover;
- Terracing or contour planting on areas of significant slope;
- Use of hedgerows (densely spaced shrubs or trees planted as barriers or boundaries).

E 4. Biodiversity

Goal: The areas under agriculture, forestry and fisheries are managed sustainably, ensuring conservation of all forms of biodiversity.

Ecosystem Diversity

Description: Natural ecosystems (e.g. prairie, forest, savannah) are rich in biodiversity and provide many services that benefit people and the environment (e.g. pest control, pollination, climate regulation). When these lands are converted into agricultural lands, much of their biodiversity and ecosystem services are lost.

Species Conservation Practices

Description: Biodiversity includes the variety of different ecosystems, species and genes. Biodiversity provides vital services (e.g. pollination, pest management). Practices that help to conserve the biodiversity of animal and plant species include:

- Permanent set-asides;
- Rehabilitated or restored natural areas;
- Hedgerows or buffer zones;
- Pest control measures that do not involve synthetic pesticides.

Practices that harm species include:

- Burning land;
- Converting natural land into production land.

In productive lands, growing multiple different crops or livestock in the same area helps contribute to the overall health of the farm.

Saving Seeds and Breeds

Description: Biodiversity includes different crop varieties and animal breeds. Conserving a range of varieties/breeds provides resistance against different pests and diseases. Locally adapted varieties/breeds have been used for a sufficiently long period of time as part of a production system that they have adapted to perform well in local environmental conditions. Local sources of seeds/breeds (e.g. saving seeds, from neighbours, seed banks or breeding programmes) have advantages over external sources, as they are adapted to local conditions.

E 5. Materials and Energy

Goal: Damage to ecosystems and contribution to resource scarcity resulting from non-renewable material extraction, non-renewable energy use and waste disposal are minimised through economical and efficient use, consequent reuse and recycling/recovery and safe disposal.

Nutrient Balance

Description: Having the right nutrient balance (e.g. nitrogen, phosphorus and potassium) is important to optimize productivity and prevent environmental pollution. The application of synthetic or natural fertilizers should be based on a careful assessment of soil and crop needs. This may be from a farmer's observation of his/her crops or professional tests, or analyses.

Renewable and Recycled Materials

Description: Recycling/reusing materials contributes to a more efficient use of natural resources. This has positive benefits for the environment, people and the economy. Producers can improve their sustainability through the recycling/reuse of:

- Crop, processing, or other organic matter residues produced on the farm;
- Other materials: metal, plastic containers, paper, cardboard, etc.

  Note that it is not appropriate to reuse or recycle agrochemical containers.

Energy Use

Description: Energy consumption, particularly from burning fossil fuels, has high environmental impacts. Efforts are needed to reduce energy use and improve the efficiency of energy use. If wood and charcoal are used for energy, it is important that these come from sustainable sources. As it can be difficult for smallholders to calculate energy use rates, this indicator focuses on efforts to reduce energy consumption instead. Note that many smallholders have low energy needs, so fulfilling a significant portion of their energy needs may require a relatively small amount of energy (as measured in Btu, kWh, etc.).

Food Loss and Waste Reduction

Description: Food loss and waste decreases food availability and places unnecessary pressure on natural resources. Pre-harvest losses occur between planting and harvesting a crop (e.g., from shocks like disease, high labour costs, extreme weather). Post-harvest losses occur between harvesting and selling/using a product (e.g., from improper storage and transportation methods).

E 6. Animal Welfare

Goal: Animals are kept in such conditions that they can express their natural behavior and are free from hunger, thirst, discomfort, pain, disease and other distress.

Animal Health and Welfare

Description: Animal welfare refers to the physical and psychological well-being of animals. Different species and age groups will have specific needs. The following core aspects should be universally applied to all animals on the farm:

- Access to veterinary care;
- Proper disease management;
- Animal well-being and proper living conditions.

Note that the scope of the indicator is limited to farm production only and does not include transport or slaughter.

SUSTAINABILITY DIMENSION: ECONOMIC RESILIENCE

C 1. Investment

Goal. Through its investments, the enterprise enhances its sustainability performance and contributes to sustainable development at the community, regional, national or international levels.

Community Investment

Description: Community welfare projects are designed to address a local need that has been identified. There are many ways in which producers can participate in community welfare projects, including investing their time, skills, money, or products. All enterprises depend on the health of the local community and environment in which they operate. By contributing to the sustainable development of the local community, enterprises also help to secure their own sustainability.

Profitability

Description: Examines revenue and cost aspects of the farming operation. The indicator covers whether the smallholder produces crops/products for sale or trade, knowledge of his/her farm revenues and significant costs, and the use of that knowledge to determine whether the farm has been operating at a profit or loss during the last five years. The questions for this indicator do not require recording actual revenue and cost values, but are instead focused on the producer‘s knowledge of these values.

C 2. Vulnerability

Goal: The enterprise’s production, supply and marketing are resilient in the face of environmental variability, economic volatility and social change.

Product Diversification

Description: Producers must cope with unpredictable conditions. They face economic and environmental risks that are beyond their control. Producers can reduce the risks they face by having many different sources of income. Those who produce a range of different crops, products, and services can adapt to unforeseen hazards (e.g. natural disasters, price instability). Adding value to products through processing can be another source of income.

Stability of Market

Description: Examines the number of buyers that a producer has access to and the quality and stability of the relationship the producer has with his/her most important buyer. In order to prevent risks, producers need to be able to sell their crops and products at the right time and ensure that they always have outlets through different buyers. Therefore, it is important for producers to establish stable relationships with a number of buyers.

Liquidity

Description: Liquidity stands for having access to credit, including from formal and informal loan entities, ability of obtaining requested amounts, as well as savings.

Safety Nets

Description: Safety nets include access to crop-related insurance, having a risk management plan or having set-aside resources to use in times of need. Safety nets are important because they help minimize vulnerability to economic, environmental, and social risks during emergencies, such as when the producer faces a lack of cash flow and is unable to pay for inputs, wages, loans, etc.

C 3. Product Quality and Information

Goal: Any contamination of produce with potentially harmful substances is avoided, and nutritional quality and traceability of all produce are clearly stated.

Hazardous Pesticides

Description: Pesticides can cause severe or irreversible harm to human health and the environment. If producers use pesticides, they can minimize environmental and health risks through: the use of integrated pest management or organic techniques; avoiding

pesticides with a red band around the container or label (this is the WHO hazard coding for most hazardous pesticides); refraining from mixing pesticides; and only using pesticides that have labels with instructions on dosage, safety, etc. that the producer understands.

Food Quality

Description: Ensuring high quality and eventually, nutritional content of crops and animal products can provide economic advantages by enhancing an enterprise's reputation and, eventually, achieving higher prices at market. On the other hand, failing to meet expectations of good quality risks damaging the reputation of an enterprise. If you have had a technical quality assessment, it is important that you are aware of the results and understand the analysis.

Certified Products

Description: Certification assures customers that a product has been produced according to a particular claim (e.g. environmentally-friendly, fair trade). Producers are likely to receive higher prices or better market access for certified products. Not having a certification is not necessarily unsustainable. However, having a certification rescinded (taken away by the certifier) is likely to be an indication of unsustainable production practices.

C 4. Local economy

Goal: Through production, employment, procurement, marketing and investments in infrastructure, the enterprise contributes to sustainable local value creation.

Regional workforce

Description: In rural areas, farming contributes substantially to local economies by creating jobs. If the producer hires labour, this indicator examines whether the producer is contributing to the local economy by hiring from the local community instead of relying on external sources of labour, such as migrant workers.

SUSTAINABILITY DIMENSION: SOCIAL WELLBEING

S 1. Decent Livelihood

Goal: The enterprise provides assets, capabilities and activities that increase the livelihood security of all personnel and the local community in which it operates.

Quality of Life

Description: The producer's opinion of the overall quality of life compared to the previous year. Aspects of quality of life can include: access to healthy and culturally important foods, safe and sufficient shelter, living in safety without fear of violence or robbery, the ability to spend adequate time with family and friends to maintain healthy relationships, safe and healthy working conditions, religious freedom, ability to pursue education, etc.

Wage level

Description: This indicator will examine the extent to which the producer's income, as well as that of employees (if any) support a living wage.

Capacity Development

Description: Through training and education, producers can acquire skills and knowledge to improve their practices. Producers can receive training from other farmers (sharing of good practices or Farmers-Field-Schools) in the region or receive training from an extension agent or NGO.

S 2. Fair Trading Practices

Goal: Fair trading practices provide suppliers and buyers with prices that reflect the true cost of the entire process of sustaining a regenerative ecological system, including support for right livelihood for primary producers, their families and employees.

Fair pricing

Description: Sustainable trading relationships depend on fair prices based on fair contracts and agreements. Prices should reflect the full costs of production, including a decent wage level for workers. This indicator focuses on the extent to which the producer understands how his/her buyer(s) establish/calculate prices paid to the producer and the types of market information the producer reports knowing (e.g. price the buyer receives, prices paid by other buyers in the region for the same product, retail price).

S 3. Labour rights

Goal: The enterprise provides regular employment that is fully compliant with national law and international agreements on contractual arrangements, labour and social security.

Employment relations

Description: Labour rights refer to the group of legal and human rights that govern employment relations between workers and their employers. This assessment considers potential discrimination amongst social groups (i.e., immigrants, women, ethnic or religious minorities).

Freedom of association and right to bargaining

Description: This indicators refer to workers right to freely negotiate the terms of their employment, adhere to an association defending worker's rights and collectively bargain, without retribution.

Forced Labor

Description: This indicator refers to forced, bonded or involuntary labour on the farm. This includes hired workers whose passports are kept by employers to prevent them from leaving or protesting against unacceptable working or wages conditions.

Child labour

Description: Child labour refers to work that is harmful to the physical or mental development of children, or deprives them of their childhood or opportunities to gain an education. This indicator examines whether children who are 16 years or younger are able to work on the farm in a way that allows them to also attend school. As a guide, a threshold of 20 hours of farm work a week is the maximum an individual might work on farm and also benefit from formal education.

S 4: Equity

Goal: The enterprise pursues a strict equity and non-discrimination policy and pro-actively supports vulnerable groups.

Non-Discrimination

Description: Non-discrimination refers to strict equity among workers, independent from race, creed, colour, ethnic origin, gender, age, handicap or disability, political activity, immigration and citizenship status, marital status or sexual orientation in hiring, job allocation, rewarding and firing.

Gender equality

Description: Gender equality means that there are no barriers to women's participation in decision-making, employment and access to resources. This indicator examines the proportion of farm decisions made by both genders and if men and women have equal access to training opportunities. If there are children on the farm, this indicator also covers whether boys and girls have equal access to formal education.

S 5: Human safety and health

Goal: The work environment is safe, hygienic and healthy and caters to the satisfaction of human needs, such as clean water, food, accommodation and sanitary installations.

Workplace safety and health provisions

Description: A safe, hygienic and healthy workplace meets the following standards:

- Medical care is within a reachable distance if it is needed;
- Medical care is affordable to household members and workers;
- Access is available to water considered safe for drinking, hygiene and cooking;
- There are restrictions on who may apply pesticides;
- Protective gear is used for pesticide application;
- There are few serious injuries on the farm.

S 6. Cultural Diversity

Goal: The enterprise respects the intellectual property rights of indigenous communities and the rights of all stakeholders to choose their lifestyle, production and consumption patterns.

Food Sovereignty

Description: Food sovereignty involves the producer's right to produce the crops/products that he/she wants to produce, including traditional, heirloom and locally adapted varieties or breeds. It includes access to adequate nutrition that is culturally appropriate and satisfying each day.

Indigenous knowledge

Description: This indicator recognizes and valorizes traditional and cultural knowledge, including indigenous customs in general, knowledge of growing and catching, techniques and uses of seeds, medicinal plants, and other specialty products.

APPENDIX 3
SAFA Smallholders App SURVEY

Basic Information

1. Name of assessor:
2. Assessing organization:
3. Date of assessment:
4. Name of person being interviewed:
5. Gender of person being interviewed:
   - ○ Female
   - ○ Male
6. Is this person the farm owner?
   - ○ Yes
   - ○ No
7. Name of farm:
8. Village of farm:
9. Country of farm:
10. Does the interview take place on or close to the farm?
    - ○ Yes
    - ○ No
11. If you do know the GPS coordinates of your farm, please type them here:
12. OR Collect the GPS coordinates of the interview (function in the app)
13. Phone number of interviewee:
14. E-Mail of interviewee (if any):
15. What are the main crops and products that you produce?

Main product 1:	Main product 6:
Main product 2:	Main product 7:
Main product 3:	Main product 8:
Main product 4:	Main product 9:
Main product 5:	Main product 10:

16. Which best describes your level of commercialization? (check all that apply)
    - ○ I am a subsistence farmer
    - ○ I sell mostly to local markets/customers
    - ○ I am a fully commercialized farmer (sell goods mostly for export)
    - ○ I am a contract farmer (with a company or a public-private partnership)
17. Do you produce any livestock on your farm?
    - ○ Yes
    - ○ No
18. What is the size of the farm (local units and preferably, in hectares)?

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

only one answer option per question can be ticked with an "x"

If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

Mission Explicitness

1. Do you have a statement about the farm's goals and values that you follow and that everyone on your farm understands? [weight: 1]

- ○ Yes (green)
- ○ Partially (yellow)
- ○ No (red)

Accountability

2. Do you keep accurate records of your production processes (e.g., planting and harvesting information, input use) so they can be made available to producer organizations, customers or suppliers when required? [weight: 1]

- ○ Always or often (green)
- ○ Sometimes (yellow)
- ○ Never or rarely (red)

Participation

3. Do you belong to a producer organization (or another agriculturally focused organization)? [weight: 1]

- ○ Yes (green)
- ○ No (red)

4. How much value do you feel the farm receives from being a part of the organization? [weight: 1]

- ○ Significant value (green)
- ○ Some value (yellow)
- ○ Little or no value (red)

Conflict Resolution

5. How often have you been able to peacefully and successfully resolve any problems or conflicts that you have experienced with your suppliers, workers, producer' organization or buyers? [weight: 1]

- ○ Always or often (green)
- ○ Sometimes (yellow)
- ○ Never or rarely (red)
- ○ There have not been any problems or conflicts with other stakeholders (neutral)

Sustainability Management Plan

6. Do you have a farm management plan that provides for the success of your production in the long run? [weight: 1]

- ○ Yes (green)
- ○ No (red)

7. How successful has this plan been? [weight: 1]

- ○ Very successful (green)
- ○ Somewhat successful (yellow)
- ○ Not at all or limited success (red)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

only one answer option per question can be ticked with an "x"

If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

8. Which elements are part of your plan? [weight: 1]
(green for 3 choices or more, yellow for 2 choices, red for 1 choice or less)

- ☐ Finances
- ☐ Soil fertility management
- ☐ Environmental management
- ☐ Expansion/Staff
- ☐ Health and Safety
- ☐ Marketing
- ☐ Quality
- ☐ Processing or adding value
- ☐ Other

Profitability

9. Do you produce crops, animals, or agricultural products for sale or trade? [weight: 2]

- ○ Yes (green)
- ○ No (red) – no go

10. Do you know your farm revenue for the last production year? [weight: 2]

- ○ Yes (green)
- ○ No (red)

11. Do you know your paid labour costs for the last production year? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Not applicable (neutral)

12. Do you know your fertilizer, pesticide and seeds/plant material costs for the last production year? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Not applicable (neutral)

13. Do you know your animal feed, veterinary care and juvenile stock costs for the last production year? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Not applicable (neutral)

14. During the last five years, how often were farm revenues greater than costs? [weight: 1]

- ○ All or most of the time (green)
- ○ Some of the time (yellow)
- ○ Rarely/Never (red) – no go
- ○ I don't know (yellow)

Product Diversification

15. How many significant crops, products, or services are offered for sale? [weight: 1]

- ○ Three or more significant crops, products, or services (green)
- ○ Two significant crops, products, or services (yellow)
- ○ One significant crop or product (red)

16. Do you do any processing or value adding in order to increase revenue from services or the sale price of your crops or agricultural products (e.g., tourism, butchered meat, drying coffee or fruit, processing jam)? [weight: 1]

- ○ Yes (green)
- ○ No (yellow)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

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If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

Stability of Market

17. How many buyers do you have for your significant crops or products? [weight: 1]

- ○ I usually have multiple people or places to sell my product(s) to (green)
- ○ I usually have one or two people or places to sell my product(s) to (yellow)
- ○ I do not have a regular person or place to sell to (red)

18. How is your relationship with your most important buyer? [weight: 1]

- ○ Very reliable and consistent (green)
- ○ Somewhat reliable and consistent (yellow)
- ○ Unreliable (red) – no go

19. Do you feel that you have a choice in where to sell your products? [weight: 1]

- ○ Yes (green)
- ○ No (red)

Fair pricing and transparent contracts

20. Do you understand how buyer(s) calculate or establish prices paid? [weight: 1]

- ○ Always or often (green)
- ○ Sometimes (yellow)
- ○ Never or rarely (red)

21. What type of market information did you know during the last production year? [weight: 1]
Check all that apply (any of the first three answers gets a green score for the question):

- ☐ Prices paid by different buyers throughout the region for the same product
- ☐ Price my buyer received for the product
- ☐ Retail price of the product
- ☐ None (red)

Liquidity

22. Check the sources from which you could realistically get a loan if you needed one: [weight: 1]
(two or more of the first four answers is green, one is red)

- ☐ Informal sources such as friends, relatives, or religious groups
- ☐ Banks, government lending institutions
- ☐ Directly from buyers (exporter, importer, roaster, trader)
- ☐ NGOs, cooperatives, farmer associations or microfinance group
- ☐ My only option would be to ask a loan shark (red) – no go

23. If you requested a loan during the last year, how much did you receive compared to the amount that you requested? [weight: 1]

- ○ All or most (green)
- ○ Some (yellow)
- ○ None (red) – no go
- ○ I did not request a loan during the last year (neutral)

24. Have you set aside savings? [weight: 1]

- ○ Yes (green)
- ○ No (red)

LEGEND

☐ **MULTIPLE CHOICE**

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○ **SINGLE CHOICE**

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Safety Nets

25. Do you have crop related insurance? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ It is not available (yellow)

26. Do you have a risk management plan that accounts for minimum costs or support in case of harvest loss (e.g., community supported schemes, agreements with cooperatives)? [weight: 1]

- ○ Yes (green)
- ○ No (red)

27. Have you implemented on-farm measures to reduce risk from variability in natural conditions and inputs (e.g. building a water tank)? [weight: 1]

- ○ Yes (green)
- ○ Some (yellow)
- ○ No (red)

Food Quality

28. Do you take actions to maintain high quality in your crops and products (e.g. hygienic processing, proper storing and packaging, grading)? [weight: 1]

- ○ Yes (green)
- ○ No (red)

29. During the last two years, have you had a technical quality assessment of any of your main crops or products? [weight: 1]

- ○ Yes (green)
- ○ No (red)

Certified Products

30. Do you produce any crops, animals or products that meet, or are certified, to a standard? [weight: 1]

- ○ Yes (green)
- ○ No (yellow)
- ○ I had a certification, but it was rescinded/taken away (red) – no go

31. How much of your main products or crops are sold as certified? [weight: 1]

- ○ All or most (more than 80%) (green)
- ○ Some (40%-80%) (yellow)
- ○ Not much or none (less than 40%) (red)

Legitimacy

32. How do you ensure legal and regulatory compliance in general, including also any standard voluntarily entered into? [weight: 1]
(green for 2 choices, yellow for 1 choice, red no choice)

- ☐ I use board agendas, other official records or notes of rights and compliances
- ☐ I keep licences and permits, if required by law
- ☐ I regularly report on compliance to auditors

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

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If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

GHG Mitigation Practices

33. Which statement best describes the current area covered by trees on your farm? [weight: 1]

- ○ About half or more of my farm is covered by trees (green)
- ○ Less than half of my farm is covered by trees (yellow)
- ○ I do not have any trees on my farm (red)

34. /35. During the last production year was there any change to the number of trees on your farm? [weight: 1]

- ○ Increase (include planting new trees from cuttings or from seed) (green)
- ○ Decrease (removing focus crop trees, shade trees, natural forest trees, or other crop trees) (yellow)
- ○ No change (green)

36. What is your main tillage method? [weight: 1 for both GHG and Land]

- ○ Conventional (red)
- ○ Reduced (yellow)
- ○ No-till (green)

37. Does your farm consist mostly of ruminant production (e.g. cattle, goats, sheep)? [weight: 1]

- ○ Yes (red)
- ○ No (green)

38. What is the main type of manure management system used on the farm? [weight: 1]

- ○ Open-air lagoon or discharged into water bodies (red)
- ○ Compost or biodigestion (green)
- ○ Direct use (collected and spread on cropping area, left on pasture) (yellow)

Air Pollution Prevention Practices

39. Do you use a smokeless fuel or chimney to vent smoke when cooking? [weight: 1]

- ○ Yes (green)
- ○ No (red)

40. Do you ever burn your fields? [weight: 1 for both Air pollution and Species conservation]

- ○ Yes (red)
- ○ No (green)

Soil Improvement Practices

41. What is the main type of fertilizer used on the farm? [weight: 1 for GHG and Soil]

- ○ Natural fertilizers applied according to crop and soil needs (green for GHG and Soil)
- ○ Natural fertilizers applied without knowledge of crop or soil needs (yellow for GHG and green for Soil)
- ○ A combination of natural and synthetic fertilizers (yellow for GHG and Soil)
- ○ Synthetic fertilizers applied according to crop and soil needs (yellow for GHG and Soil)
- ○ Synthetic fertilizers applied without knowledge of crop or soil needs (red for GHG and yellow for Soil)
- ○ None (green for GHG and red for Soil)

42. Which of the following are used to improve soil fertility on the farm? [weight: 1]
(two or more of the first four answers is green, one is yellow)

- ☐ Cover crops
- ☐ Nitrogen fixing annual or perennial plants
- ☐ Intercropping
- ☐ Crop rotation for maintaining soil health
- ☐ None (red)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

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If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

Nutrient Balance

43. How do you determine how much fertilizer (synthetic or natural) to apply to your crop(s)? [weight: 1]

- ○ We apply fertilizer based on a careful assessment of our soil and crops (including farmer observation, professional tests, or analyses) (green)
- ○ We apply fertilizer based on general advice for the region or for our crop(s) (yellow)
- ○ We are not able to fertilize (red)
- ○ We do not use enough fertilizer, but we apply as much as we can afford (yellow)

Land Conservation and Rehabilitation Practices

44. Which of the following are ways that you manage your soil? [weight: 1]
(two or more of the first three answers is green, one is yellow)

- ☐ Maintain a permanent soil cover through mulch, planted soil cover, etc.
- ☐ Terracing or contour planting on areas of significant slope
- ☐ Hedgerows (e.g., trees and shrubs)
- ☐ Soils are often bare between cropping cycles (red)

Hazardous Pesticides

45. Do you use any synthetic (chemical) pesticides on your farm? [weight: 1 for Pesticides and Water pollution]

- ○ Yes (red)
- ○ Only occasionally (yellow)
- ○ No (green)

46. Do any of the synthetic pesticides used on your farm have a red band around the container or on the label? [weight: 1]

- ○ Yes (red) – no go
- ○ No (neutral)

47. Do the pesticides used on your farm have labels that you understand? [weight: 1]

- ○ Yes, they all have labels with instructions on dosage, safety, etc. that I understand (green)
- ○ Some do not have readable labels (or are unlabeled) (red) – no go

48. Do you ever mix pesticides? [weight: 1]

- ○ Yes (red) – no go
- ○ No (green)

Ecosystem Diversity

49. Did you convert any natural land (prairie, forest, or savannah) to production land during the last five years? [weight: 2 for Ecosystem diversity and weight: 1 for Land]

- ○ Yes (red)
- ○ No, there is no natural land on the farm (neutral)
- ○ No, natural land on the farm was left as is (green)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

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If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

Species Conservation Practices

50. Do you have any of the following on your farm to preserve or restore natural species? [weight: 1]
(two or more of the first three answers is green, one is yellow)

- ☐ Permanent set-aside (land taken out of production to create a habitat for biodiversity)
- ☐ Rehabilitated or restored natural areas
- ☐ Hedgerows or buffer zones
- ☐ None (red)

51. Check all of the pest and disease management practices used for the main crop(s) during the last production year: [weight: 1 for both Species conservation and Hazardous pesticides]
(All four first choices should be marked for green, yellow if only some are marked)

- ☐ Conduct regular visual examinations of plants to detect pests or disease
- ☐ Use traps, repellants (including repellant species), and natural pesticides
- ☐ Create or preserve places (including plant species) for beneficial predators of pests to live
- ☐ Maintain written record of pest infestation, treatments, and results
- ☐ I use synthetic pesticides specific to the crop and/or pest at the proper dosage and timing (yellow)
- ☐ I apply synthetic pesticides preventatively (e.g., on a regular schedule regardless of whether a pest or disease threat currently exists) (red)

52. Which statement best describes the diversity of your farming system? [weight: 1]

- ○ I produce multiple (4+) types of crops and/or livestock in the same area (green)
- ○ I produce 2-3 types of crops and/or livestock in the same area (yellow)
- ○ The majority of my farm is used to produce a single crop or one type of livestock (red)

Saving Seeds and Breeds

53. For the main crops and livestock produced on the farm, do you use any locally adapted varieties of seeds or breeds? [weight: 2]

- ○ Yes (green)
- ○ No (red)

54. What is the main source of your seeds or breeds? [weight: 1]

- ○ Saved by the farmer, obtained from neighbours, or from a local seed bank (or breeding program for livestock) (green)
- ○ A combination of local and non-local sources (yellow)
- ○ Completely reliant on external non-local sources (red)

Water Conservation Practices

55. Do you use water conservation practices on the farm? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Sometimes (yellow)

56. Do you irrigate your crops? [weight: 1]

- ○ Yes (neutral)
- ○ No (green)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an "x"

○ **SINGLE CHOICE**

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If you ticked one answer option by mistake fill out the whole check box or radio button in order to mark the selection as invalid.

57. What form of irrigation do you use? [weight: 1]

- ○ Manual irrigation (hand watering) (yellow)
- ○ Surface irrigation (red)
- ○ Drip irrigation (green)

Water Pollution Prevention Practices

58. Which of the following statements apply to your farm? [weight: 1]

- ☐ The land I use for cultivating crops and/or for pasturing animals is directly next to natural waterways (red)
- ☐ Pesticide application equipment is cleaned in natural water bodies (red)
- ☐ Untreated domestic or processing water is discharged into natural water bodies (red)
- ☐ None (green)

Renewable and Recycled Materials

59. How do you manage crop residues, processing residues, and organic matter? [weight: 2]

- ○ Reused (e.g., through compost, as a soil cover, animal feed, biofuel or other uses) (green)
- ○ Burned or discharged into waterways (red)
- ○ Left in piles or taken off farm (yellow)

60. Do you recycle or reuse metal, plastic containers or bags (with the exception of agrochemical containers), paper or cardboard? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Not applicable (neutral)

Energy Use/Energy consumption/Renewable energy

61. If you use electricity, charcoal, wood, or fuel sources of energy, are you improving your efficiency? [weight: 1]

- ○ I can demonstrate that I reduce energy use (e.g., through fuel efficient stoves, solar drying, well-maintained machinery, switching from wood to gas) (green)
- ○ I have made some efforts to reduce energy, but I have not applied them to most of my farm (yellow)
- ○ I do not make any attempts to reduce energy (red)

62. If you used wood or charcoal for energy during the last production year, what was the main source? [weight: 1]

- ○ Purchased, I don‘t know (yellow)
- ○ Managed natural forest with limited extraction (green)
- ○ Unlimited forest use (red)
- ○ Managed plantations or planted woodlots (green)
- ○ Tree pruning (green)
- ○ Not applicable, I do not use wood or charcoal energy (neutral)

63. Do you use any of the following renewable energy sources for a significant portion of your energy needs? [weight: 1] (any green answer gets a green for the indicator)

- ☐ Solar (green)
- ☐ Hydropower or geothermal (green)
- ☐ Wind (green)
- ☐ Biofuel from farm or household waste (green)
- ☐ None of the above (yellow)

LEGEND

☐ **MULTIPLE CHOICE**

multiple answer options can be ticked with an “x”

○ **SINGLE CHOICE**

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Food Loss and Waste Reduction

64. Which of the following best describes your pre- and post-harvest losses (i.e., the amount of crop lost during production, storage, and transport) during the last production year? [weight: 1]

- ○ Minimal (less than 10%) (green)
- ○ Some (10-30%) (yellow)
- ○ Substantial (more than 30%) (red)

65. Do you take active steps to reduce pre- and post-harvest losses on your farm (through improving storage and transport methods, pest/disease management, harvesting at the appropriate time, etc.) [weight: 1]

- ○ Yes (green)
- ○ No (red)

Animal Health and Welfare

66. Do you have access to veterinary care for the livestock on your farm? [weight: 1]

- ○ I do not have access (red)
- ○ I have access, but it is problematic (unqualified personnel, too costly, too distant, or it is inhumane) (yellow)
- ○ I have access to veterinary services that are of good quality, affordable, and nearby (green)

67. Which statement best describes the way livestock diseases are managed on the farm? [weight: 1]

- ○ I give animals medication routinely to prevent them from becoming sick (red)
- ○ I follow my veterinarian or a local expert's recommendation for the treatment of diagnosed diseases (green)
- ○ I do not consult professionals or experts about animal diseases (yellow)
- ○ I do not provide my livestock with any veterinary care (red)

68. Which of the following most accurately reflects the general state of well-being and living conditions of animals on the farm? [weight: 1]

- ○ I practice animal husbandry that provides animals with adequate space, shelter that is kept clean and does not crowd animals, a sufficient and balanced diet, and I prevent unnecessary distress (green)
- ○ Animals have adequate living conditions, sufficient feed, and I try to prevent unnecessary distress, but there is room for improvement (yellow)
- ○ Animals are kept in unsanitary or inadequate shelter conditions, are limited in expressing natural behaviours, do not have access to adequate feed, or measures are not taken to keep animals from experiencing unnecessary distress (red) – no go

Safety of Workplace, Operations and Facilities

69. How long must you travel to reach medical care (nurse, doctor, or clinic) using the most common transportation method? [weight: 1]

- ○ Treatment at farm or under 1 hour (green)
- ○ 1 to 3 hours (yellow)
- ○ More than 3 hours (red) – no go

70. How affordable is the nearest medical care for the farm's household members and workers? [weight: 1]

- ○ Treatment is free, or costs are low and do not cause difficulty (green)
- ○ Costs are difficult, but not so high as to keep household members and workers from obtaining treatment when needed (yellow)
- ○ Costs are so high that household members or workers avoid treatment even for very serious conditions (red) – no go

LEGEND

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71. How long must people on the farm travel to reach water they consider safe to drink? [weight: 1]

- ○ Water is available on site, or is 5 minutes or less away (green)
- ○ More than 5 minutes, but less than 20 (yellow)
- ○ More than 20 minutes (red) – no go

72. Do members of your household and others who live on your farm have consistent access to sufficient and adequate water for human use (i.e., for water intake, hygiene, and cooking needs)? (As a reference point, 15 litres per person per day is generally considered adequate) [weight: 1]

- ○ Yes (green)
- ○ Most of the time (yellow)
- ○ No (red)

73. Do any of the following apply pesticides on the farm? [weight: 1]

- ☐ Pregnant women (red)
- ☐ People under 18 (red)
- ☐ People untrained in pesticide application (red)
- ☐ None of these groups apply pesticides on the farm (green)

74. What protective equipment is used when synthetic pesticides are applied? [weight: 1]
(All 4 answers must be marked for green, yellow for some)

- ☐ Plastic or rubber gloves
- ☐ Breathing masks (not just handkerchiefs)
- ☐ Protective outer clothing (should cover body with impermeable material)
- ☐ Protective foot gear (rubber or plastic boots)
- ☐ None (red) – no go

75. Did you have more than one serious injury on your farm during the last year (enough to require medical attention)? [weight: 1]

- ○ Yes (red)
- ○ No (green)

76. How well are you prepared to avoid risks on the farm and to handle emergencies? [weight: 1]
(All 3 answers must be marked for green, yellow for two, red for one or none)

- ☐ I have first aid kits on the farm (e.g. bandages, antiseptics)
- ☐ I warn my employees of potential hazards on the farm and how to handle them (e.g. snake bites)
- ☐ I properly store dangerous tools and well maintain machinery

Capacity Development

77. What type of training(s) did you attend during the last year? (Training is considered to be a half-day or more) [weight: 1]
(three or more types of training is green, one or two is yellow)

- ☐ Improving farming operations (agricultural practices or processing practices)
- ☐ Improving record keeping (on farming operations traceability and book keeping)
- ☐ Marketing support (information and education about topics such as prices, market contacts)
- ☐ Health and safety issues
- ☐ Environmental issues
- ☐ Adult literacy
- ☐ Managing the farm's business or finances
- ☐ Other
- ☐ I did not participate in training (red)

LEGEND

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Paid Labor

78. Do you hire paid labor? [trigger question, not rated]

- ○ Yes
- ○ No

Employment relations

79. Would you be willing to hire workers of different social groups (e.g. ethnic/religious minorities) at the same wage rate of a local man of the dominant ethnicity and religion? [weight: 1]

- ○ Always or often (green)
- ○ Sometimes (yellow)
- ○ Never or rarely (red) – no go
- ○ Not applicable (neutral)

Freedom of Association and Right to Bargaining

80. Are hired workers free to associate with colleagues or unions and do they have the right to bargain their employment conditions? [weight: 1]

- ○ Definitely do (green)
- ○ Sometimes (yellow)
- ○ Definitely don‘t (red)

Forced Labour

81. Are hired workers free to leave their employment at any time, with reasonable notice and in accordance with working agreement (formal or informal)? [weight: 1]

- ○ Yes (green)
- ○ At a price (e.g. penalty, non-payment of wage, loss of privileges) (red)

Child labor

82. Which of the following statements apply to children younger than 16 years working on the farm (whether or not they are paid)? [weight: 1]

- ○ Children work on the farm with family in a way that allows them to attend school (work less than 20 hours a week) (green)
- ○ Children work on the farm instead of going to school (work more than 20 hours a week) (red)
- ○ Children do not work on the farm (green)

Non-discrimination

83. In case of harassment or discrimination amongst your employees (e.g. sexual harassment of women), how would you respond? [weight: 1]

- ○ I am comfortable implementing a procedure to protect vulnerable groups (green)
- ○ I do not have a plan or procedure, but I would take action (yellow)
- ○ I would not personally take action (red)

LEGEND

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Gender equality

84. Are both men and women active on the farm? [trigger question, not rated]

- ○ Yes (neutral)
- ○ No (neutral)

85. What portion of the decisions about the farm's significant crops/products are made by men on the farm? [weight: 1]

- ○ All or most (red)
- ○ About half (green)
- ○ Few or none (red)

86. What portion of the decisions about the farm's significant crops/products are made by women on the farm? [weight: 1]

- ○ All or most (red)
- ○ About half (green)
- ○ Few or none (red)

87. Do girls and boys on the farm have the same educational opportunities? [weight: 1]

- ○ Yes (green)
- ○ No (red)
- ○ Not applicable, there are no children on the farm (neutral)

88. Do men and women on the farm have the same training opportunities? [weight: 1]

- ○ Yes (green)
- ○ No (red)

Regional workforce

89. If you hire labour, what is the main source of your workers? [weight: 1]

- ○ I hire mostly workers from the local community (green)
- ○ I hire mostly migrant workers or workers from outside my local community (red)
- ○ I hire workers from the local community and also migrants or those outside of my community (yellow)
- ○ I tried to hire local workers but was unable to do so, due to circumstances that did not depend on me (yellow)
- ○ Not applicable (neutral)

Food Sovereignty

90. How much do you agree with the following statement: I have the option to choose to produce the crops and products that I want to on my farm? [weight: 1]

- ○ Agree (green)
- ○ Neither agree or disagree (yellow)
- ○ Disagree (red)

91. Do all members of the household have access, every day, to adequate nutrition in a culturally appropriate and satisfying way? [weight: 1]

- ○ Yes (green)
- ○ No (neutral)

LEGEND

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92. How many days during the last production year did any member of the family cut the size of meals or skip meals because there wasn't enough food? [weight: 1]

- ○ 1-9 days (yellow)
- ○ 10-29 days (red)
- ○ 30 or more days (red) – no go

Indigenous knowledge

93. Do you consider that your product has a higher value-added thanks to traditional/indigenous knowledge? [trigger question, not rated]

- ○ Yes (neutral)
- ○ No (neutral)

94. Do you have a connection with the community where the traditional/indigenous knowledge has originated from? [weight: 1]

- ○ I am a part of the community myself (green)
- ○ Formal link with sharing of benefits (e.g. royalties or sharing profits) (green)
- ○ Informal link to ensure the preservation of knowledge (yellow)
- ○ No link established (red)

Tenure rights

95. Do you feel secure with your tenure? [weight: 1]

- ○ Yes (green)
- ○ Somewhat (yellow)
- ○ No (red)

96. Are there practices or investments you would like to implement on your farm but cannot because of tenure constraints? [weight: 1]

- ○ Yes (green)
- ○ Possibly (yellow)
- ○ No (red)

Community Investment

97. Do you participate in any community welfare projects (e.g., building community facilities, roads, schools, clinics, water works; organizing youth activities; or donating food or produce to community events), or do you undertake activities that have direct benefits for your community (e.g., managing a shared forest, building ponds for water management)? [weight: 1]

- ○ Yes, I regularly participate in or organize projects that benefit my community (green)
- ○ I am aware of projects like these in my community, and I participate in them occasionally (yellow)
- ○ I do not participate in community welfare projects (red)

Quality of Life

98. What is your opinion of the overall quality of life (e.g. in terms of time, money and lifestyle) on the farm compared to the previous year? [weight: 1]

- ○ Good (green)
- ○ Not good, not bad (yellow)
- ○ Bad (red)

LEGEND

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Wage level

99. Which of the following can you afford comfortably based on your income, without compromising time for weekly rest and holidays? [weight: 1]
(green for all selected, yellow for 5 to 8 choices, red for 4 choice or less)

- ☐ Three meals a day for myself and my family that include fruits and vegetables, and meat if I choose to eat it
- ☐ Appropriate clothing for myself and my family including shoes, clean clothes for school or work, warm clothes in winter, etc
- ☐ Medical care, including visits to doctors for myself and my family, and prescriptions or medications
- ☐ Educational expenses for children including school fees, uniforms, books and transportation
- ☐ Sufficient clean drinking water in my home
- ☐ Access to safe means of transportation
- ☐ Housing that is safe and protects from the weather
- ☐ Energy expenses that allow light and adequate heating or cooling (such as fans or heaters), when necessary
- ☐ Savings of at least 10% of my income to set aside for cultural or recreational activities and other expenses

100. Which of the following can your employees afford comfortably, based on the wage rate that you pay them, without having to have a second source of income? [weight: 1]
(green for all selected, yellow for 5 to 8 choices, red for 4 choice or less)

- ☐ Three meals a day for themselves and their family that include fruits and vegetables, and meat if they choose to eat it
- ☐ Appropriate clothing for themselves and their families including shoes, clean clothes for school or work, warm clothes in winter, etc
- ☐ Medical care, including visits to doctors for themselves and their families, and prescriptions or medications
- ☐ Educational expenses for children including school fees, uniforms, books and transportation
- ☐ Sufficient clean drinking water in their homes
- ☐ Access to safe means of transportation
- ☐ Housing that is safe and protects from the weather
- ☐ Energy expenses that allow light and adequate heating or cooling (such as fans or heaters), when necessary
- ☐ Savings of at least 10% of their income to set aside for cultural or recreational activities and other expenses

Congratulations on completing the SAFA Smallholders App survey. On the following pages, we offer further possibility to give feedback to FAO on the survey. Check your results in the main menu item "View report".

LEGEND

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Comments

» Do you have any comments on the survey?

» Do you have any feedback that you want to send to FAO?

Make sure to send the information via the main menu item "Upload survey on SAFA server".

LEGEND

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SAFA Smallholders App

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